

Eric VanRuymbeke Sr. Advisor Leave to Construct Applications Regulatory Affairs

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January 12, 2024

### VIA RESS AND EMAIL

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

Dear Nancy Marconi:

### Re: Enbridge Gas Inc. (Enbridge Gas) Ontario Energy Board (OEB) File: EB-2023-0201 Eganville Community Expansion Project – Interrogatory Responses

In accordance with the OEB's Procedural Order No. 1, dated November 22, 2023, enclosed please find the interrogatory responses for the Eganville Community Expansion Project.

As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1 as a result of the OEB decision on the Extra Length Charge (ELC) in EB-2022-0200.<sup>1</sup> Enbridge Gas has reflected these updates throughout its responses to interrogatories contained within the attached package.

Please note, an excel version of the following exhibits have been included with this submission:

- ED-1\_Attachment 1
- ED-7\_Attachment 1
- ED-25 Attachment 1
- ED-28 Attachment 2
- ED-28 Attachment 5
- ED-28 Attachment 6
- ED-40 Attachment 1

<sup>&</sup>lt;sup>1</sup> EB-2022-0200, Decision and Order, December 21, 2023, p. 50, "The OEB approves the proposed ELC of \$159 per metre beyond the first 20 meters for use in 2024."

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If you have any questions, please contact the undersigned.

Sincerely,

Eric VanRuymbeke

Eric VanRuymbeke Sr. Advisor – Leave to Construct Applications

c.c. Guri Pannu (Enbridge Gas Counsel) EB-2023-0201 Intervenors

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-1 Page 1 of 1

## ENBRIDGE GAS INC.

### Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

### Interrogatory

Reference:

Letter of Comment

Preamble:

Following publication of the Notice of Application, the OEB received a letter of comment.

### Question(s):

Please file a response to the matters raised in the letter of comment. Going forward, please ensure that responses to any matters raised in subsequent comments or letters that Enbridge Gas receives are filed in this proceeding. Please ensure that name and contact information is redacted for public filings. All responses must be filed before the argument (submission) phase of this proceeding.

### Response:

In response to the question raised in the letter of comment filed November 16, 2023 regarding the basis for the customer forecast, Enbridge Gas's customer forecast is informed by the current Municipal Property Assessment Corporation (MPAC) data and directly by the responses to the Market Research survey<sup>1</sup> which was delivered to all residential properties within the Project area.<sup>2</sup> See the response to I.STAFF-5 part e).

In response to the second question raised in the letter of comment regarding an increase to the expansion surcharge if fewer than the expected number of customers sign up, consistent with the direction in the OEB's EB-2020-0094 Decision,<sup>3</sup> the expansion surcharge has been set by the OEB and cannot be changed without OEB review and approval.

Enbridge Gas will ensure that it files responses to any future comments or letters received in this proceeding with the OEB.

<sup>&</sup>lt;sup>1</sup> Exhibit B, Tab 1, Schedule 1, Attachment 6.

<sup>&</sup>lt;sup>2</sup> Exhibit B, Tab 1, Schedule 1, pp. 6-7.

<sup>&</sup>lt;sup>3</sup> EB-2020-0094, Decision and Order, November 5, 2020, pp. 8-9.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-2 Plus Attachments Page 1 of 2

### ENBRIDGE GAS INC.

### Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

### Interrogatory

### Reference:

Exhibit A, Tab 2, Schedule 1, page 1, paragraph 26

### Preamble:

In addition to leave to construct approval for the project, Enbridge Gas requested approval of municipal franchise agreements with and certificates of public convenience and necessity for the Townships of Bonnechere Valley and North Algona Wilberforce.

### Question(s):

- a) Please confirm that Enbridge Gas will ensure the franchise agreements are executed and the bylaws have passed third and final reading with the Townships of Bonnechere Valley and North Algona Wilberforce prior to the start of construction of the project.
- b) Please file a customer density map or "heat map" illustrating the customers to be served in the Townships of Bonnechere Valley and North Algona Wilberforce.<sup>1</sup>
- c) Please clarify whether Enbridge Gas's certificate requests are for the entire municipal boundaries of the Township of Bonnechere Valley and the Township of North Algona Wilberforce.
  - i) If not, please provide a written description of the proposed certificate area in each Township and an accompanying map illustrating the proposed certificate area in each Township.
  - ii) If yes, please explain why Enbridge Gas requires a certificate for the entire municipal boundaries of the Townships of Bonnechere Valley and North Algona Wilberforce instead of certificates that cover the boundaries required for the project. Please explain whether Enbridge Gas plans to serve additional areas in the Townships of Bonnechere Valley and North Algona Wilberforce in the future.

<sup>&</sup>lt;sup>1</sup> See for example, EB-2023-0312, Enbridge Gas Franchise Renewal Application with the Town of Fort Frances, Schedule A

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-2 Plus Attachments Page 2 of 2

### Response:

- a) Confirmed.
- b) Please see Attachments 1 and 2 to this response.
- c) The requests for Certificates of Public Convenience and Necessity are for all areas within the municipal boundaries of the Townships of Bonnechere Valley and North Algona Wilberforce. While there does not appear to be an immediate need for Certificates to cover all parts of these municipalities, Certificates covering all areas would provide clarity and certainty with respect to service areas and allow for more immediate responses to requests for access to gas distribution services. Given the location of these municipalities in the County of Renfrew, there are no other gas distribution companies currently in the area of these municipalities. Not having Certificates that cover the whole of these municipalities could unnecessarily delay responding to requests for natural gas service in currently unserved areas of the municipalities. While Enbridge Gas does not have any existing or planned infrastructure extensions in other areas of these municipalities, there are already several residences and businesses in place within these municipalities that have the potential for future service expansion requests.

As is noted in the Natural Gas Facilities Handbook<sup>2</sup>, if a Certificate has been issued for a particular area in which there is currently no gas distribution service, another person may apply for a Certificate to serve that area. Granting Certificates to Enbridge Gas for all the Townships of Bonnechere Valley and North Algona Wilberforce does not prevent another distributor from proposing to provide service in an unserved area, but it would avoid delays to Enbridge Gas initiating work to address requests for service caused by the need to apply for Certificate amendments.

<sup>&</sup>lt;sup>2</sup> Natural Gas Facilities Handbook, p.14.





#### Township of North Algona Wilberforce (Eganville Community Expansion Proposal Project) Legend Proposed Expansion Corridor Proposed Tie-In to Existing Pipeline Existing Enbridge Gas Pipelines Township of North Algona Wilberforce Disclaimer: Ottawa Roads The map is provided with no warranty express or Implied and is subject to change at any time. Any Railways Person using the Density Map shall do so at its own Municipal and Township Boundaries Risk and the Density Map is not intended in any way As a tool to locate underground infrastructure for the Wooded Areas purposes of excavation First Nation Boundaries ÉNBRIDGE® ed Customer Density High LOW Location map

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-3 Plus Attachment Page 1 of 1

## ENBRIDGE GAS INC.

### Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

### Interrogatory

### Reference:

Exhibit B, Tab 1, Schedule 1, page 1

### Preamble:

The Eganville Community Expansion Project was approved to be eligible to receive funding assistance as part of Phase 2 of the Government of Ontario's Natural Gas Expansion Program (NGEP).

OEB staff notes that Enbridge Gas filed unredacted versions of its NGEP proposals in the following community expansion proceedings: Selwyn, EB-2022-0156; Mohawks of the Bay of Quinte, EB-2022-0248; Hidden Valley, EB-2022-0249.

#### Question(s):

a) Please file an unredacted version of Enbridge Gas's NGEP proposal for the Eganville Community Expansion Project.

#### Response:

a) Please see Attachment 1 to this response for the original NGEP proposal for the Eganville Community Expansion Project.

Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 1 of 23

Schedule 6A Enbridge Gas Community Expansion Project Proposal

### Enbridge Gas Inc. Potential Projects to Expand Access to Natural Gas Distribution

Part I – Name of Proponent							
Name of Proponent:	File No:						
Enbridge Gas Inc.	EB-2019-0255						
Project Name: Eganville Community Expansion Project							
Address of Head Office:	Telephone Number:						
50 Keil Drive North	519-436-4600						
Chatham, ON N7M 5M1							
Name of Individual to Contact:	Office Telephone Number:						
	519-436-5325						
Patrick McMahon	Cell Phone Number:						
	519-437-0759						
	Email Address:						
	patrick.mcmahon@enbridge.com						

## Part II – Description of Proponent's Technical Expertise and Financial Capability

Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.

A proponent that is not currently rate-regulated as a natural gas distributor by the OEB and that has multiple proposed projects is only required to provide the information in this Part once, unless the proponent has different organizational or financial structure approaches for its projects. In that case, the information in this Part must be provided for each different organizational or financing structure.

Part II – Description of Proponent's Technical Expertise and Financial Capability					
2.1	Describe the proponent's technical expertise to develop, construct, operate and maintain a natural gas distribution system. N/A				
2.2	<ul> <li>Describe the proponent's financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following: <ul> <li>Current credit rating of the proponent, its parent or associated companies.</li> <li>Financial statements for each of the past two fiscal years. This may include audited financial statements, annual reports, prospectuses or other such information. If the proponent does not have financial statements (because it is a new entrant), the proponent is instead to provide pro forma financial statements for two years along with notes or business plans explaining the assumptions used in preparing the pro forma statements, where the documents must be signed by at least one key individual.</li> <li>If the proponent needs to raise additional debt or equity to finance the proposed project, evidence of the proponent's ability to access the debt and equity markets.</li> </ul> </li> <li>New entrants that cannot provide the information identified in this section should explain why that is the case and provide the best information that they have available.</li> </ul>				

Part I	II – Description	of and	Support for	Project

3.1	Provide a general overvie following: communities t would serve any on-rese of each community by re sectors; routing; length o	ew of the project, whi o be connected, inclu rve Indigenous comn sidential, commercia of pipeline; and nomi	ich is to include the uding whether the project nunities; existing popula I/institutional and indus nal pipe size.	ct ation trial							
	Enbridge Gas is proposing to provide gas distribution service in the community of Eganville within the Township of Bonnechere Valley as well as along the supply lateral on Cobden Road (Highway 8) in the Township of Admaston / Bromley. The proposed facilities will provide access to natural gas to a forecasted 674 customers (581 residential, 83 commercial / institutional and 10 industrial).										
	The proposed project will tie-in to an existing 8" steel supply lateral at the intersection of Cobden Road and Behm Line. This tie-in will bring gas from the existing system to the proposed station location at the intersection of Camley Line and Cobden Road. From the proposed station, the lateral continues west along Cobden Road to Eganville.										
	In the Township of North Algona Wilberforce, proposed facilities will extend along Letts Cemetery Road, Highway 60, Ott Road, Kiley Road, Mink Lake Road, Rose Trail, Lily Trail, Trillium Lane, Weslilly Lane, Cedarest Lane, McMac Lane, Visutski Lane, Priest Camp Lane, Grist Mill Road, Maple Grove Lane, Jessup Road, Holiday Lane, Cobden Road and Highway 60.										
	In the Township of Bonnechere Valley, proposed facilities will extend along Augsburg Road, Water Street, Hurds Creek Lane, Klingbeil street, Sunset Lane, Hartwig Street, Jane Street, Riverview Place, Queen Street, Jessie Street, Paul Street, Alice Street, Wellington Street, James Street, Ridge Road, Oak Street, Wallace Street, Maple Street, Raglan Street, Victoria Street, Knox Terrace, Elgin Street, John Street, Mill Street, Grist Mill Road, 4th Chute Road, Melanie Street, Louise Street, Veterans Way, James Street, Paul Street, Foran Street, Lisk Street, Elsie Street, Patrick Street, Bridge Street, Wellington Street South, Bell Street, Foymount Road, Sommerville Drive and Highway 41.										
	In the Township of Admaston to the intersection of Micksbu	/ Bromley, proposed fac irg Road and Cobden Ro	ilities will extend along Cobd bad.	en Road							
	The approximate length and	size of the supply lateral	s required:								
	Pipe Type	Diameter (NPS)	Length (m)								
	Steel	4	1,154								
	The approximate length and	size of the distribution pi	pelines required:								
	Pipe Type	Diameter (NPS)	Length (m)								
	Polyethylene	2	23,824								
	Polyethylene	4	18,655								
	Polyethylene	6	9,644								
	Polyethylene	8	7,312								

	Please refer to Schedule 6A-1 for Project Map.
3.2	Provide the annual and cumulative forecast of the number of customer attachments over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community. Indicate for each customer type whether the service to be provided would be firm or interruptible.
	Please refer to Schedule 6A-2, Table 3.2.
3.3	Provide the annual and cumulative forecast of volumes (in m <sup>3</sup> ) over the ten- year rate stability period by residential, commercial/institutional and industrial sectors for each community.
	For the residential segment, the default value for the average consumption level is 2,200 m <sup>3</sup> per year. A proponent that has more accurate information regarding the annual consumption for residential customers in a given community may use that value, in which case it must explain how it has determined that it is more accurate than the default.
	Please refer to Schedule 6A-2, Table 3.3.
3.4	Provide the estimated conversion costs to convert each of the existing heating systems (e.g., propane forced air, oil forced air, electric forced air and electric baseboard) and water-heating systems (e.g., electric, oil and propane) to natural gas. To the extent available, provide information on the current proportion of customers on each type of heating system.
	Provide the estimated annual costs of the existing alternative fuels relative to natural gas, including the annual savings with natural gas. The calculation of household energy costs for natural gas should include conversion costs, commodity costs, associated upstream transportation costs to Ontario, incremental CNG and LNG costs (where applicable), costs under the federal <i>Greenhouse Gas Pollution Pricing Act</i> and distribution costs. The assessment of household energy cost impacts should include greenhouse gas (GHG) emission estimates (whether positive or negative) related to converting existing heating and water heating systems to natural gas. The major assumptions (e.g., conversion factors) used in the calculations must also be provided.
	Please refer to Schedule 6A-3, Table 3.4.

3.5	Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.
	Please refer to Schedule 6A-4 for Proposed Construction Schedule.
3.6	Provide letter(s) from the Band Council(s) and/or local government, as applicable, stating support for the project, including details of any commitment to financial support.
	No letter of support has been provided by the local government in time for this project submission.
3.7	Provide a copy of the Certificate of Public Convenience and Necessity (Certificate) for the area to be served, if held by the project proponent. If not, indicate whether another entity holds the Certificate for the area to be served, if known, and if so, identify the Certificate holder.
	Where the project proponent holds a Certificate for the areas to be served, specify the boundaries of the Certificate and indicate whether the boundaries encompass the entire area that would be supplied by the proposed project.
	Please refer to Schedule 6A-6 for Enbridge's CPCN for the Township of Admaston / Bromley (EB-2018-0238) which covers the eastern portion of the proposed project.
	Enbridge Gas does not currently have a CPCN for areas of the proposed project within the Township of Bonnechere Valley and the Township of North Algona Wilberforce.
Part I	V – Cost of Project
4.1	Confirm that the proposed project includes a ten-year rate stability period.
	The proposed project does include a ten-year rate stability period.

4.2	Provide the total forecast o upstream reinforcement co period (i.e., year ten).	f capital cos sts) of the p	sts (includir project at the	ng any forec e end of the	ast of rate stability					
	Where applicable, the inflation rate to be used is the most recent quarter average GDP IPI FDD. For interest during construction, the proponent is to use the OEB-prescribed interest rate for construction work in progress (CWIP).									
	For projects proposing to use CNG and/or LNG, the costs of required infrastructure and other associated costs must be included as part of the total project capital costs.									
	Include any upstream reinforcement costs in the total cost of the project. To the extent that the reinforcement costs for an incumbent utility's proposed project are materially different from the reinforcement costs that the utility has estimated for another proponent's project in the same area, the incumbent utility must identify in its filing that two separate estimates exist and explain the reasons for the differences.									
	Please refer to Schedule 6A-	2, Table 4.2.								
4.3	Provide the total annual for the ten-year rate stability por rate base amount at the end	ecast reven eriod (using d of year ter	iue requiren   fully alloca n.	nent of the ted OM&A	project over costs) and					
	Complete the tables below:	:								
	Revenue Requirement									
	Description	Voar 1	Voar 2	Voar 10	Total					
	Revenue Requirement				Total					
	Description	Year 10								
	Closing Rate Base									
	Where applicable, the inflation rate to be used is the most recent quarter average GDP IPI FDD. For interest during construction, the proponent is to use the OEB-prescribed interest rate for construction work in progress (CWIP).									

Part V	/ – Section 36.2 Funding
5.1	Provide the total amount of section 36.2 funding needed to support the project. \$26,169,413 Please refer to Schedule 6A-2. Table 5.1.
5.2	Provide the section 36.2 funding amount per customer number served in year ten of the project.         \$38,827         Please refer to Schedule 6A-2, Table 5.2.
5.3	Provide the section 36.2 funding amount per volume (m <sup>3</sup> ) in year ten of the project. \$9.32 Please refer to Schedule 6A-2, Table 5.3.

## Part VI – Distribution Charge

Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the rate stability period.
Provide a confirmation that there would be no material cross- subsidization between rate classes.
Please refer to Schedule 6A-2, Table 6.1.
Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.

Part VII – Profitability Index / Benefit to Cost Ratio

7.1	Provide, in a summary table, the expected Profitability Index (PI) of the project, inclusive of the proposed section 36.2 funding. Provide any major assumptions used in the calculation, and specify all proposed section 36.2 funding, revenue from rates (including any proposed system expansion surcharges), capital contributions and municipal tax holidays or other municipal financial support.								
	The project must have a PI of 1.0. The PI is to be calculated based on an individual project (i.e., not a "portfolio" of projects).								
	Please refer to Schedule 6A-2, Table 7.1.								
7.2	Provide, in a summary table that otherwise meets the requirements of section 7.1, the expected PI of the project without the proposed section 36.2 funding.								
	Please refer to Schedule 6A-2, Table 7.2.								

Part \	/III – OEB Approvals									
8.1	Identify any OEB approvals that will be required for the project (Leave to Construct, Certificate of Public Convenience and Necessity, Municipal Franchise Agreement, Rate Order).									
	Leave to Construct									
	<ul> <li>Franchise Agreements and Certificates of Public Convenience and Necessity (Township of Bonnechere Valley, Township of North Algona Wilberforce)</li> </ul>									
8.2	For OEB approvals identified in section 8.1, provide a schedule for applying for them and the date by which each of these approvals is required to meet the proposed in-service date. For this purpose, proponents should reference the performance standards posted on the OEB's <u>website</u> and where applicable assume a written hearing process. Please refer to Schedule 6A-4.									

Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 10 of 23

Schedule 6A-1 Enbridge Gas Community Expansion Project Proposal

Eganville



Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 12 of 23

## Schedule 6A-2 Enbridge Gas Community Expansion Project Proposal

## Community Expansion Eganville

#### InService Date: Nov-01-2023

## Table 3.2 - Customer Attachments Over The Rate Stability Period

······································													
Customer Type	<u>Firm / IT</u>	Project Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>Total</u>
Residential	Firm		157	139	53	37	30	36	31	36	32	30	581
Commercial	Firm		-	41	13	7	5	3	3	3	2	2	79
Institutional	Firm		-	2	1	-	-	-	-	-	-	-	3
Agricultural	Firm		-	1	-	-	-	-	-	-	-	-	1
Industrial	Firm		-	3	2	1	1	1	1	1	-	-	10
Total Customers			<u>157</u>	<u>186</u>	<u>69</u>	<u>45</u>	<u>36</u>	<u>40</u>	<u>35</u>	<u>40</u>	<u>34</u>	<u>32</u>	<u>674</u>
Cumulative Customers			157	343	412	457	493	533	568	608	642	674	

### Table 3.3 - Annual and Cumulative Volumes Over The Rate Stability Period (m3)

	Annual Volumes - m3														
Customer Type	Project Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>Total</u>			
Residential		182,093	525,519	748,350	852,986	930,863	1,007,540	1,085,417	1,163,294	1,242,371	1,314,248	9,052,676			
Commercial		-	80,000	187,100	231,500	259,900	279,700	297,100	314,500	326,900	334,300	2,311,000			
Institutional		-	50,000	125,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,225,000			
Agricultural		-	5,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	85,000			
Industrial		-	150,000	400,000	550,000	650,000	750,000	850,000	950,000	1,000,000	1,000,000	6,300,000			
Total Volumes	_	<u>182,093</u>	<u>810,519</u>	<u>1,470,450</u>	<u>1,794,486</u>	<u>2,000,763</u>	<u>2,197,240</u>	<u>2,392,517</u>	<u>2,587,794</u>	<u>2,729,271</u>	<u>2,808,548</u>	<u>18,973,676</u>			

			Cumulative Volumes - m3													
Customer Type	Project Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>					
Residential		182,093	707,611	1,455,961	2,308,946	3,239,809	4,247,348	5,332,765	6,496,058	7,738,429	9,052,676					
Commercial		-	80,000	267,100	498,600	758,500	1,038,200	1,335,300	1,649,800	1,976,700	2,311,000					
Institutional		-	50,000	175,000	325,000	475,000	625,000	775,000	925,000	1,075,000	1,225,000					
Agricultural		-	5,000	15,000	25,000	35,000	45,000	55,000	65,000	75,000	85,000					
Industrial		-	150,000	550,000	1,100,000	1,750,000	2,500,000	3,350,000	4,300,000	5,300,000	6,300,000					
Total Volumes	—	<u>182,093</u>	<u>992,611</u>	<u>2,463,061</u>	4,257,546	<u>6,258,309</u>	<u>8,455,548</u>	<u>10,848,065</u>	<u>13,435,858</u>	<u>16,165,129</u>	<u>18,973,676</u>					

## Table 4.2 - Total Capital Costs At End Of The Rate Stability Period

Total Capital Costs	<u>Year 10</u> <u>\$ 36,757,345</u>
Table 4.3 - Revenue Requirement Over The Rate Stability Period	
Revenue Requirement	Project Year         1         2         3           \$ 394,042         656,213         761,712
Closing Rate Base (net of proposed Section 36.2 funding)	<u>Year 10</u> <u>\$ 8,679,221</u>

EB-2019-0255	
Schedule 6A-2	

<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>Total</u>
<u>805,051</u>	<u>833,631</u>	<u>861,914</u>	<u>885,706</u>	<u>909,413</u>	<u>931,859</u>	<u>950,751</u>	7,990,292

## Community Expansion Eganville

InService Date: Nov-01-2023

Table 5.1 - Total Amount of Section 36.2 Funding	
Section 36.2 Funding Needed to Support the Project	\$ 26,169,413
Table 5.2 - Section 36.2 Funding Amount Per Customer Served	
Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> <u>\$ 38,827</u>
Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)	
Section 36.2 Funding Amount Per Volume (m3)	<u>Year 10</u> <u>\$ 9.32</u>
Table 6.1 - Distribution Charge	
Distribution Revenue SES Revenue Total Distribution Charge	Project Year         1         2         3           \$ 32,575         129,267         218,684           41,881         186,419         338,203           \$ 74,456         315,687         556,888
Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding	Net Dresset Value
<u>Cash Inflow</u> Revenue: Distribution Revenue System Expansion Surcharge (SES) Revenue Total Revenue (A)	\$ 5,811,137 <u>8,992,119</u> 14,803,256
Expenses: O&M Expense Municipal Tax Income Tax Total Expenses (B)	(865,118) (2,598,954) (1,450,858) (4,914,930)
Total Cash Inflow ( $C = A + B$ )	\$ 9,888,326
Cash Outflow Gross Capital Proposed Section 36.2 Funding Change in Working Capital Total Cash Outflow (D)	(36,059,213) 26,169,413 1,474 \$ (9,888,326)
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

EB-2019-0255 Schedule 6A-2

<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>Total</u>
258,460	284,646	308,278	331,069	353,860	373,564	388,710	\$ 2,679,114
412,732	460,175	505,365	550,279	595,193	627,732	645,966	4,363,945
<u>671,191</u>	<u>744,821</u>	<u>813,643</u>	<u>881,348</u>	<u>949,052</u>	<u>1,001,296</u>	<u>1,034,676</u>	\$ 7,043,059

## Community Expansion Eganville

InService Date: Nov-01-2023

## Table 7.2 - Profitability Index (PI) Without Section 36.2 Funding

	Net Present Value
Cash Inflow	
Revenue:	
Distribution Revenue	\$ 5,811,137
System Expansion Surcharge (SES) Revenue	8,992,119
Total Revenue (A)	14,803,256
Expenses:	
O&M Expense	(865,118)
Municipal Tax	(2,598,954)
Income Tax	2,580,205
Total Expenses (B)	(883,867)
Total Cash Inflow (C = A + B)	\$ 13,919,389
Cash Outflow	
Gross Capital	(36,059,213)
Change in Working Capital	1,474
Total Cash Outflow (D)	\$ (36,057,739)
Profitability Index (PI) Without Section 36.2 Funding (C / D)	<u>0.39</u>

EB-2019-0255 Schedule 6A-2 Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 16 of 23

## Schedule 6A-3 Enbridge Gas Community Expansion Project Proposal

Section 3.4 Eganville											Schedule 6A-3
	Total Forecasted Customers	674		Penetration Rate	65%						
											Estimated Annual
									Estimated Annual GHG		GHG Change
		Current		Estimated Annual	Estimated	Estimated		Estimated Annual	Change (increased GHG	Estimated Annual	(increased GHG is
	Number of Customers	proportion of	Estimated	Estimated Annual	Annual	Annual	Estimated	GHG per customer	is +ve/decreased GHG	GHG - Total	+ve/decreased GHG
	Number of customers	customer <sup>1</sup>	Conversion Cost <sup>2</sup>	(evisting fuel)	Energy Costs	Savings per	Annual Savings	Existing Fuel	is -ve) per customer	Community -	is -ve) total
		customer		(existing ruer)	(natural gas)	customer		(tCO2e)	switching to natural gas	Existing Fuel (tCO2e)	community switching
									(tCO2e)		to natural gas
Existing Fuel / Heating Type											(tCO2e)
Oil	142	21%	\$ 5,000	\$ 3,050	\$ 1,481	\$ 1,570	\$ 222,182	7.2	-2.7	1,015	(379)
Electricity F/A	61	9%	\$ 5,000	\$ 2,187	\$ 1,481	\$ 706	\$ 42,853	0.6	3.9	35	237
Electricity Baseboard	81	12%	\$ 12,000	\$ 2,187	\$ 1,481	\$ 706	\$ 57,138	0.6	3.9	47	317
Propane	297	44%	\$ 600	\$ 1,764	\$ 1,481	\$ 283	\$ 84,024	5.6	-1.1	1,657	(323)
Wood	61	9%	\$ 3,500	N/A	N/A	\$-	N/A	NA	. NA	NA	NA
Other	34	5%	\$ 5,000	N/A	N/A	\$-	N/A				
Total	674	100%	\$ 31,100	\$ 9,188	\$ 5,923	\$ 3,266	\$ 406,197	13.9	4.1	2,755	(148)

2 Based on Market Research gathered information. All of the costs are installed costs, so the cost of new equipment + the cost of having it installed.

		Ei	mission Factors	
	CO2	CH4	N2O	CO2e Units
Natural Gas	1863 g/m3	0.037 g/m3	0.035 g/m3	0.001874355 tonnes/m3
Heating Oil	2725 g/L	0.006 g/L	0.031 g/L	0.002734388 tonnes/L
Propane	1510 g/L	0.024 g/L	0.108 g/L	0.001542784 tonnes/L
Electricity	30 g/kWh	-	-	0.00003 tonnes/kWh
Wood	-	-	-	

Emission Factor Sources:

Natural gas, heating oil and propane CO2 factors: Guideline for Quantification, Reporting and Verification of GHG Emissions - Ontario Ministry of Environment, Conservation and Parks Natural gas, heating oil and propane CH4 and N2O factors: Canada's Greenhouse Gas Quantification Requirements, December 2019 - Environment and Climate Change Canada Electricity factors: 2020 National Inventory Report (Part 3) - Environment and Climate Change Canada (using 2018 consumption intensity for Ontario) Estimated Annual GHG (tCO2e) = Emission Factors x Consumption Equivalent

Estimated Annual GHG Change (tCO2e) = Estimated Annual GHG For Natural Gas - Estimated Annual GHG For Existing Fuel (tCO2e)

	Rate 1 (Community Expansion, Non-FN)													
Con	sumption Equivalent	Price per Unit												
Gas	m3	2400	Gas (incl. fixed)	\$/m3	0.617									
Heating oil	L	2623	Heating oil	\$/L	1.163									
Electricity	kWh	19460	Electricity	\$/kWh	0.112									
Propane	L	3622	Propane	\$/L	0.487									

Notes:

Gas prices correspond to EGI (EGD) April 2020 rates, including 23 cents per m<sup>3</sup> SES charge.

Heating Oil Prices correspond to the latest available Toronto retail prices (February 2019)

Electricity prices correspond to Hydro One (Med Density - R1) distribution rates implemented January 1, 2020 and includes the new Ontario Electricity Rebate (OER) The calculated annual savings vs electricity do not reflect the COVID-19 Emergency pricing which is effective for 45 days

Propane prices correspond to the latest available montly average EDPRO residential rates for Zone 4 (March 2020)

Carbon price is included for all energy types as reported. All costs exclude HST.

### EB-2019-0255 Schedule 6A-3

1 Fuel shares were estimated based on the average fuel share distribution observed in other potential expansion areas. Specifically, the fuel share distribution from 27 prospective expansion areas surveyed in 2018 and 2020 were averaged, with weights based number of homes in each area. Fuel percentages may not add up to 100% due to rounding error.

Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 18 of 23

## Schedule 6A-4 Enbridge Gas Community Expansion Project Proposal

# Eganville Community Expansion Project Pipeline Construction Schedule

Task Namo	2022									2023												2024																		
Task Name	Jan	Feb	Ma	ır Ap	or N	Лау	Jun	Jul	Au	g Se	p O	ct N	l vol	Dec	Jan	Feb	Ma	r Ap	or N	/lay	Jun	Jul	Au	g Sep	0 0	ct N	lov	Dec	Jan	Feb	Mai	Apr	May	/ Jun	Jul	Au	g Sep	00	t No	v Dec
Environmental Assessments																																								
Permits & Approvals																																								Τ
Leave to Construct Application and Approval							l																																	
Pre-Construction, Construction and Testing																																								
In Service																																								

## Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 19 of 23

EB-2019-0255 Schedule 6A-4 Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 20 of 23

## Schedule 6A-5 Enbridge Gas Community Expansion Project Proposal

Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 21 of 23 Schedule 6A-5

# The Corporation of the Township of Bonnechere Valley

49 Bonnechere Street East P.O. Box 100 Eganville, Ontario K0J 1T0



Phone (613) 628-3101 Fax (613) 628-1336 <u>admin@eganville.com</u> EB-2019-0255

July 17, 2020

Dear REGIONAL DIRECTOR,

Re: Expression of Support for Natural Gas Expansion to the Village of Eganville

In December 2019, the Government of Ontario announced plans to further increase access to natural gas by making financial support available for new service expansion projects. This Natural Gas Expansion Program will unlock financial support needed to expand natural gas service to new areas across Ontario that are not economically feasible without support. The Township of Bonnechere Valley is one such area, and we are eager to bring this affordable, reliable fuel source to our residents and businesses.

On behalf of the Township of Bonnechere Valley, I would like to formally express our interest to have the Village of Eganville included on Enbridge Gas' list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through the Natural Gas Expansion Program.

Based on the draft Guidelines issued by the OEB (EB-2019-0255), we are aware that Enbridge Gas Inc. may be required to include support for the proposed project from Band Council(s) and/or local government, as applicable, demonstrated through a written expression of support and/or a commitment to financial support in its project submissions.

Natural gas is the most common, affordable heating fuel in Ontario. We fully support the efforts of Enbridge Gas Inc., the OEB and the Ministry of Energy, Northern Development and Mines. We look forward to working together to expand natural gas access in our community to attract new opportunities, help create jobs and lower monthly costs for our residents.

Sincerely,

annette Gilchrist

Annette Gilchrist, CMO, AOMC CAO, Township of Bonnechere Valley

Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-3, Attachment 1, Page 22 of 23

Schedule 6A-6 Enbridge Gas Community Expansion Project Proposal

## EB-2018-0238

## **Certificate of Public Convenience and Necessity**

The Ontario Energy Board grants

## **Enbridge Gas Distribution Inc.**

approval under section 8 of the *Municipal Franchises Act,* R.S.O. 1990, c. M.55, as amended, to construct works to supply gas to the

## **Township of Admaston/Bromley**

as it is constituted on the date of this Decision and Order.

DATED at Toronto, September 13, 2018

ONTARIO ENERGY BOARD

Pascale Duguay Manager, Application Policy and Climate Change

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-4 Page 1 of 2

## ENBRIDGE GAS INC.

### Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

### Interrogatory

### Reference:

Exhibit A, Tab 2, Schedule 1, page 2, paragraph 1 Exhibit D, Tab 2, Schedule 1, page 1

### Preamble:

Enbridge Gas proposed to construct the project in two phases:

- Phase 1: approximately 11 km of 8-inch PE natural gas pipeline and approximately 50 m of a combination of 6-inch and 8-inch steel natural gas pipeline
- Phase 2: approximately 11 km of 8-inch PE natural gas pipeline

Enbridge Gas plans to commence construction of Phase 1 in August 2024 with a planned in-service of December 2024. Enbridge Gas plans to commence construction of Phase 2 in October 2024 with a planned in-service of June 2025. Enbridge Gas's project construction schedule anticipates receipt of OEB approval by April 2024.

### Question(s):

- a) Please explain why Enbridge Gas proposed to construct the project in two phases with separate proposed construction starts and in-service dates. Please explain why the proposed pipelines in Phase 1 and Phase 2 could not be constructed simultaneously to achieve one in-service date for the project.
- b) Please provide an updated construction schedule at Exhibit D, Tab 2, Schedule 1, page 1, if applicable.

### Response:

a) Enbridge Gas proposed the project be constructed in two phases with different inservice dates. The project will start with a focus on Phase 1 to concentrate activities around the station installation. As these activities near completion, we anticipate increasing production by starting Phase 2 partially concurrently to maximize efficiency in the first year. The 2 phased approach allows the Company to provide access to natural gas to the customers in Phase 1 earlier prior to the winter season and reduces the risk of pipe being left isolated for the winter shutdown.

b) The Project schedule filed at Exhibit D, Tab 2, Schedule 1 remains accurate.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-5 Page 1 of 4

## ENBRIDGE GAS INC.

### Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

### Interrogatory

### Reference:

Exhibit B, Tab 1, Schedule 1, pages 6-7, paragraph 15 EB-2019-0255, Enbridge Gas Eganville Community Expansion Proposal, Schedule 6A

### Preamble:

The Eganville Community Expansion Project will serve approximately 723 new customers in the Townships of Admaston/Bromley, North Algona Wilberforce and Bonnechere Valley who currently do not have access to natural gas service. Enbridge Gas's expected ten-year growth forecast for the customer additions in the project area is provided in the table below.

Eganville Customer Additions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Forecasted
Residential Units (Singles)	56	140	111	56	56	28	28	28	28	28	559
Residential Multi- Units (Semis, Towns, Apartments)	0	22	19	20	19	5	3	3	3	3	97
Commercial/Industrial Units	7	16	14	14	7	3	2	2	2	0	67
Total	63	178	144	90	82	36	33	33	33	31	723

Table 2: Forecasted Customer Attachments for the Project

### Question(s):

- a) Please update Table 2 separating the forecasted commercial and industrial customer attachments, if possible.
- b) Please provide a separate breakdown of the forecast customer attachments in the Township Bonnechere Valley, North Algona Wilberforce and Admaston/Bromley.
- c) Please confirm that the residential multi-unit customer attachments are counted as the total potential customers per property and not counted as a single potential customer. If not, please file updates to the application as necessary reflecting this.

- d) What is the assumed capture rate of the forecast attachments by the end of the tenth year? Please explain if the project can support a 100% capture rate.
- e) Please explain in further detail any variances in forecast customer additions from Enbridge Gas's project proposal for funding under Phase 2 of the NGEP including the reduction in forecast commercial and industrial attachments.
- f) Please describe Enbridge Gas's plans to ensure that the customer attachments will be realized as forecast for each customer type (residential, commercial, industrial).

### Response:

a) Please see Table 1.

Eganville Customer	Year	Total									
Additions	1	2	3	4	5	6	7	8	9	10	Forecasted
Residential Units (Singles)	56	140	111	56	56	28	28	28	28	28	559
Residential Multi-											
Units (Semis,	0	22	19	20	19	5	3	3	3	3	97
Towns, Apartments)											
Commercial Units	7	16	14	14	7	3	2	2	2	0	67
Industrial Units	0	0	0	0	0	0	0	0	0	0	0
Total	63	178	144	90	82	36	33	33	33	31	723

<u>Table 1</u> Forecasted Customer Attachments for the Project

b) See Tables 2, 3 and 4 for the forecasted customer attachments for the Townships of Bonnechere Valley, North Algona Wilberforce and Admaston/Bromley, respectively.

	<del>`</del>											
Bonnechere Valley Customer Additions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Forecasted	
Residential Units (Singles)	50	121	96	50	50	25	25	25	25	25	492	
Residential Multi- Units (Semis, Towns, Apartments)	0	22	19	20	19	5	3	3	3	3	97	
Commercial Units	7	11	12	13	7	3	2	2	2	0	59	
Industrial Units	0	0	0	0	0	0	0	0	0	0	0	
Total	57	154	127	83	76	33	30	30	30	28	648	

Table 2 Forecasted Customer Attachments for Bonnechere Valley

North Algona Wilberforce Customer Additions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Forecasted
Residential Units	3	13	10	3	3	2	2	2	2	2	42
Residential Multi-	_	_	_		_		_	_	_	_	_
Units (Semis,	0	0	0	0	0	0	0	0	0	0	0
Towns, Apartments)											
Commercial Units	0	3	1	1	0	0	0	0	0	0	5
Industrial Units	0	0	0	0	0	0	0	0	0	0	0
Total	3	16	11	4	3	2	2	2	2	2	47

 Table 2

 Forecasted Customer Attachments for North Algona Wilberforce

Table 4	
Forecasted Customer Attachments for Admaston/Bromley	y

Admaston/Bromley Customer Additions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Forecasted
Residential Units (Singles)	3	6	5	3	3	1	1	1	1	1	25
Residential Multi- Units (Semis, Towns, Apartments)	0	0	0	0	0	0	0	0	0	0	0
Commercial Units	0	2	1	0	0	0	0	0	0	0	3
Industrial Units	0	0	0	0	0	0	0	0	0	0	0
Total	3	8	6	3	3	1	1	1	1	1	28

- c) Confirmed.
- d) At the end of the ten-year period, the overall assumed capture rate for the Project is approximately 81%. The Project can support 100% capture rate.
- e) The Company's original Project proposal (EB-2019-0255) was developed based on a table-top estimate and desktop information available at the time; customer count information relied solely upon MPAC data and municipal/community address extracts to establish the basis for the forecast and to designate property types (e.g., residential, commercial, or industrial). Following funding approval, development of the Project progressed including field visits to confirm addresses, refine the total potential customer count and Project scope, and to verify desktop category assumptions, where applicable. As a result of such Project development, the Company gathered more accurate data relative to the MPAC information that
supported its original proposal. In 2022 Enbridge Gas retained Forum Research to conduct market research to ensure that the attachment forecast for the Project is underpinned by the best available information. Results from the Forum Research survey indicated that 82% of residential respondents would be extremely likely (very likely, or likely) to connect to natural gas. Additionally, the pursual of the new route to town also resulted in some changes to the forecasted in scope commercial/industrial customers in comparison to the original proposal. As a result, the forecasted number of customers for the Project is 723 as compared to 674 customers in the original NGEP project proposal.

f) Enbridge Gas's Customer Attachment team will begin customer outreach in 2024 and continue throughout the Project lifecycle. Outreach activities will include customer information sessions (Kiosks), digital/social marketing campaigns, and individual one-on-one conversations at residents' homes upon request or by means of door-to-door engagement activities. This provides customers the opportunity to ask personalized questions unique to their individual circumstances. Customers can share their energy consumption from previous years to obtain cost comparisons and potential savings by assuming equivalent consumption had they been on natural gas. Enbridge Gas expects to conduct additional customer attachment events/sessions throughout Project construction and execution in coordination with the Municipality and the community.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-6 Page 1 of 3

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

#### Reference:

Exhibit B, Tab 1, Schedule 1, page 3, paragraph 12 and Attachment 6

#### Preamble:

Enbridge Gas retained Forum Research to conduct quantitative research of potential customers in the community of Eganville in the Township of Bonnechere Valley. Letters were distributed between May 27, 2022 and June 2, 2022 and CATI surveys were conducted between June 14-18, 2022. A total of 195 surveys were completed from a list of 934 homeowners. The level of completeness represents a 21% response rate.

Enbridge Gas stated that it also conducted in-person surveys of potential commercial/industrial customers within the project area to obtain customer load information where possible.

#### Question(s):

- a) Did Enbridge Gas also conduct surveys in the project area for the Townships of Admaston/Bromley and North Algona Wilberforce?
  i. If yes, please file the results of those surveys.
  ii. If not, please explain why not and discuss the method and data Enbridge Gas used to forecast customer attachments in the Townships of Admaston/Bromley and North Algona Wilberforce.
- b) Please comment on the acceptance of a 21% response rate. On what basis did Enbridge Gas determine that 5 calendar days to conduct the CATI surveys was sufficient time to yield responses from potential customers. Please explain if the acceptance rate and survey timeline is comparable to other Enbridge Gas Phase 2 NGEP projects.
- c) Please explain how Enbridge Gas forecasted 723 customer attachments with only a total of 195 surveys completed. Please discuss any other outreach activities Enbridge Gas conducted to obtain its forecast customer attachments for the project.

- d) Since the completion of the market research survey, has Enbridge Gas obtained additional or updated information regarding the interest for natural gas service as part of the project. Please discuss.
- e) Please describe the outcomes of the in-person surveys conducted with potential commercial/industrial customers within the project area and comment on how these in-person surveys have impacted Enbridge Gas's forecasted customer attachments/volumes for these customers.

#### Response:

- a) Yes, the Project area within the communities of Admaston/Bromley and North Algona Wilberforce was included in the market research conducted by Forum Research.
  - i. Results for the entire Project area, including addresses in Admaston/Bromley and North Algona Wilberforce, are provided in the Forum Research survey report provided at Exhibit B, Tab 1, Schedule 1, Attachment 6.
  - ii. Not applicable.
- b) For all formal community expansion surveys conducted by Forum Research, attempts to gather responses continue until a +/- 5.0% margin of error is achieved or until surveying is longer productive. The response rate required to achieve the targeted margin of error decreases as the population size (in this case, number of addresses in the Project area) increases. Due to its relatively large size compared to many other Phase 2 communities surveyed, a relatively lower margin of error (+/- 6.2% at the 95% confidence level) was achieved with a relatively lower response rate (21%) in Eganville. Specifically, among 18 Phase 2 communities surveyed by Forum Research, the response rate ranged from 13% to 60%, with an average response rate of 39%. The margin of error for the same group ranged between +/- 4.0% and +/- 15.4%, with an average margin of error of 8.3%. As well, attempts to collect additional responses in Eganville continued until survey was no longer productive, leading to the acceptance of the 195 survey completions.

For the Eganville survey, both online and telephone (CATI) methodologies were used, with the majority of the responses collected via the online methodology. A letter containing a link to online survey was provided to properties in the Project Area between May 27, 2022, and June 2, 2022. The survey remained open until June 22, by which time no incremental online survey responses had been received for several days. The survey duration of 20-25 days seen in Eganville is consistent with the duration of other Phase 2 surveys. Among 18 Phase 2 communities surveyed by Forum Research (primarily in 2022 and 2023), the duration ranged from 13 to 29

days, with an average duration of 23 days. As responses received through the online methodology plateaued, a telephone (CATI) version of the Eganville survey was deployed in an effort to obtain more survey responses and lower the margin of error. The telephone (CATI) survey was in the field between June 14, 2022, and June 18, 2022. During this time, all available telephone records were called, with multiple attempts made at different times of the day when the phone was not answered. Forum Research indicated the survey sample had become unproductive after the average number of phone call attempts exceeded 8, at which time Enbridge Gas agreed with Forum Research's recommendation to conclude the telephone survey.

- c) Since it is not possible to receive survey responses from all residents in a Project area, Enbridge Gas attempts to minimize the margin of error. As described in the response to b), the Eganville survey achieved a +/- 6.2% margin of error at the 95% confidence level, which is lower (representing higher a higher level of sampling accuracy) than average for Phase 2 communities that have been surveyed. There was not a need to conduct other outreach activities since the survey provided all residents in the Project area with multiple opportunities to respond and the survey was only discontinued after it became unproductive.
- d) No, Enbridge Gas has not obtained additional or updated information regarding interest in natural gas in the Project area.
- e) Enbridge Gas conducted a field survey of commercial and industrial customers within scope to verify the original customer categorization assumptions used to support the Company's original Project proposal to government, which were based on Municipal Property Assessment Corporation ("MPAC") data. The survey involved gathering field observations on specific potential customers including their business type and activities and various customer conversations to glean information on past fuel usage or equipment used. From this field-based verification some customers were recategorized based on their actual business type and loads. As a result of the in-person survey, the 10 potential customers originally designated as industrial within the original NGEP Project proposal were determined to have lower loads, were vacant or non-gas user properties, based on field validation.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-7 Page 1 of 5

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

#### Reference:

Exhibit E, Tab 1, Schedule 1, pages 1-5, paragraphs 1, 3, 12, 14 EB-2022-0200, Enbridge Gas 2024 Rebasing Application, Exhibit JT6.3

#### Preamble:

The total cost of the project is estimated to be \$35.6 million. The total cost estimate is lower than the estimate in Enbridge Gas's project proposal for funding under Phase 2 of the NGEP by approximately \$1.2 million. Enbridge Gas stated that the cost variance is attributed primarily to a reduction in forecasted large volume industrial customers driven by market research and field verification, and the identification of a more constructible route and running line that minimizes anticipated rock content.

In its application, Enbridge Gas stated that in its 2024 Rebasing application, it included the forecasted customer additions and capital cost of the project as outlined in its proposal for Phase 2 NGEP funding.

In its 2024 Rebasing proceeding, at Exhibit JT6.3, Enbridge Gas stated that the Eganville Community Expansion Project is expected to be in-service after 2024 and would not be part of 2024 rate base.

The estimated Profitability Index (PI) for the project is 0.99 (inclusive of system expansion surcharge and NGEP funding). Enbridge Gas stated that the primary factors affecting the current PI compared to the PI in its project proposal for funding under Phase 2 of the NGEP include a reduction in forecasted large volume industrial customers offset by a lower capital cost estimate, an overall increase in customer forecast, higher forecasted distribution rates and lower property taxes.

#### Question(s):

a) Please explain in more detail the reasons for the \$1.2 million cost variance from Enbridge Gas's project proposal for funding under Phase 2 of the NGEP. In your response, please also clarify how a reduction in forecasted large volume industrial customers attributed to the lower cost estimate. To support your response, please provide a table (breaking down the itemized cost description) separately comparing the NGEP cost estimate to the current cost estimate. Please discuss any major variances in each itemized cost estimate.

- b) Please confirm whether the net capital amount associated with this project is included in the proposed 2024 rate base in Enbridge Gas's 2024 rebasing proceeding.
  - i) .If the net capital amount is included, please provide the net capital amount that was proposed for inclusion in 2024 rate base.
  - ii) If the net capital amount is not included, please confirm that matters relating to the appropriate net capital amount to be included in rate base is properly addressed as part of Enbridge Gas's next rebasing proceeding.
- c) Please advise whether, after the conclusion of the rate stability period and assuming that the current forecast of costs and revenues is accurate, there will be a small subsidy from Enbridge Gas's other ratepayers to the customers connected to the project in the context of a realized PI of 0.99 in this scenario.

## Response:

a) As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. Please see Table 1, which is consistent with the evidence update, for the cost variance breakdown comparing the NGEP cost estimate to the current cost estimate.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-7 Page 3 of 5

<u>Table 1</u> <u>Cost Estimate Comparison – NGEP Proposal and Current Project Proposal</u>

Item	Description	Table 1 Proj	ect Costs (\$0	CAD)		Project Proposal (EB-2019-0255) (\$CAD)								
No.		Pipeline	Pipeline	Ancillary	Total	Pipeline Costs –	Pipeline Costs	Ancillary	Total					
		Costs –	Costs –			Phase 1	– Phase 2							
		Phase 1	Phase 2											
1.0	Material	457,414	473,021	755,777	1,686,212	195,266	159,763	1,450,924	1,805,954					
2.0	Labour and Construction	4,265,244	3,645,643	15,913,154	23,824,042	1,957,699	1,601,754	22,338,532	25,897,985					
3.0	Outside Services	1,264,728	798,785	3,401,641	5,465,153	187,420	153,344	2,070,921	2,411,685					
4.0	Lands, Permits, Approvals and Consultations	48,349	3,684	99,013	151,046	11,124	9,102	122,919	143,145					
5.0	Direct Overheads	135,238	84,712	266,934	486,885	32,898	26,917	363,515	423,330					
6.0	Contingency	596,684	470,303	1,826,673	2,893,661	447,010	365,736	4,939,297	5,752,043					
7.0	Sub-Total	6,767,657	5,476,149	22,263,193	34,506,998	2,831,418	2,316,615	31,286,108	36,434,141					
8.0	Interest During Construction	281,943	182,412	538,269	1,002,624	25,117	20,550	277,536	323,204					
		-	-	-	-	-	-	-						
9.0	Total Project Costs	7,049,600	5,658,561	22,801,462	35,509,622	2,856,535	2,337,165	31,563,642	36,757,345					

The original NGEP Project proposal included a cost estimate based on high level desktop information available at the time. Upon receipt of Project-specific approval for NGEP funding, the Company set out to refine the Project scope and associated estimate by conducting site specific investigations including site visits, field surveys, environmental studies, and consultation efforts with permitting agencies. The reduction in large volume customers did not directly reduce the cost of the Project but rather contributed to the need to refine the Project route and find cost efficiencies to maintain Project feasibility. The result was a \$1.2M reduction compared to the NGEP filing. The sources of significant variances identified are described in greater detail below:

- Material and Labour/Construction: Steel pipe at the supply lateral tie in was
  reduced from approximately 1 km to 50m with updated load information and
  variability in other downstream pipe sizes. The alternative route to town was
  also determined through the pursual of geotechnical investigations, contractor
  test digs and site visits to exhibit less rock than the original route, therefore
  reducing the labour and construction costs.
- Contingency: Due to the maturity of the project planning, the allotted contingency amount was reduced from the original proposal,

Despite the overall reduction in the project costs, the allocation of budget to the outside services and the IDC increased from the original proposal to the filed LTC.

- Outside Services: Inspection costs were estimated higher to accommodate several years of prework activities that were originally assumed to be completed by internal employees. The volume of work in the phase 2 portfolio has increased the reliance on contractors to support execution tasks.
- Interest during construction: the IDC allocation also increased compared to the original proposal as a result of integrating a more realistic planning and construction schedule into the economic analysis.
- b) Not confirmed. The net capital for the Eganville Community Expansion Project was not included in the 2024 rate base for EB-2022-0200 as the forecasted in-service date was in 2025. Enbridge confirms that the appropriate net capital to be included in rate base will be addressed in the next rebasing application. The final capital costs to be included in rate base will be determined at the rebasing application following the end of the 10-year rate stability period for the Project.
- c) As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. As per the evidence update, the PI is 1.0 and therefore Enbridge Gas does not believe there is a small subsidy from other rate payers. Consistent with the direction in the OEB's EB-2020-0094

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-7 Page 5 of 5

Decision,<sup>1</sup> upon placing the Project into service, Enbridge Gas will apply a 10-year rate stability period (RSP) during which the Company will bear the risk of the Project customer attachment and capital expenditure forecast vs. actuals. Enbridge Gas will file the actual costs and revenues of the Project with the OEB for consideration of inclusion in rates in the rebasing application following the conclusion of the RSP. The OEB has also determined that it will consider any questions about the treatment of any revenue surplus or shortfall beyond the RSP at that same time.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> EB-2020-0094, Decision and Order, November 5, 2020, pp. 8-9.

<sup>&</sup>lt;sup>2</sup> EB-2019-0188, Decision and Order, May 7, 2020: pp. 12-13; EB-2022-0156, Decision and Order, September 21, 2023, pp. 20-21; EB-2022-0248, Decision and Order, September 21, 2023, p. 20; EB-2022-0249, Decision and Order, September 21, 2023, pp. 19-20.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-8 Plus Attachment Page 1 of 1

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

#### Reference:

Exhibit D, Tab 1, Schedule 1, page 8, paragraph 13

#### Preamble:

Enbridge Gas sent the design for the proposed facilities to the Technical Standards & Safety Authority (TSSA) for review and is awaiting a response from TSSA.

#### Question(s):

a) Please provide an update on TSSA's review of the design of the proposed facilities.

#### Response:

a) On December 1, 2023, Enbridge Gas replied to questions submitted by the TSSA on November 6, 2023. Enbridge Gas's response to the TSSA's questions can be found at Attachment 1 to this response.

# **Eganville Community Expansion**

**TSSA Correspondance | Follow-up** 

December 1, 2023





## Eganville | TSSA Correspondence

Follow-up

1. Please describe the scope of this project. Please indicate what is in scope and what is out of scope. Please show this in a diagram if applicable.

Enbridge is proposing to construct the Eganville Community Expansion project to supply the community of Eganville with affordable natural gas (the "Project").

The proposed tie-in point for the distribution pipeline system will connect to an existing NPS 8 steel XHP pipeline on Snake River Line, North-West of the township of Cobden (X/Y: 45.636531, -76.911866). There will be a pressure reducing station installed near this intersection.

The distribution pipeline will go west along Mcguinty Rd, Micksburg Rd, Mcgaghran Rd, Bulger Rd, Cold Creek Rd, and Letts Cemetery Rd into the community of Eganville.

Natural Gas service installations will also be part of this project, subject to the receipt of applications from residents in the area.

See attached Eganville Map

2. Does this project have an OEB file number? If so, please provide OEB file number, or the link in OEB website, for this project.

#### EB-2023-0201

https://www.rds.oeb.ca/CMWebDrawer/Record?q=CaseNumber%3DEB-2023-0201&sortBy=recRegisteredOn-&pageLength=400

3. What is the purpose of this project? Why is the project being undertaken?

This project was selected by the Ontario Government as part of the Natural Gas Expansion Program (NGEP). This program and project will help expand access to natural gas to areas of Ontario, that currently do not have access to the natural gas distribution system, such as Eganville. This program encourages communities to partner with gas distributors on potential expansion projects that would not be built without additional financial support. The NGEP unlocks financial support needed to expand natural gas service to new areas that are not economically feasible without this additional funding.

4. Please provide the link to the environmental study report, if available.

https://www.enbridgegas.com/about-enbridge-gas/projects/eganvilleproject

5. What fuel will the proposed pipelines carry?

Natural Gas

6. How many customers will be covered under this project for natural gas delivery?

Current scope forecasts approximately 723 residential & commercial customers within the first 10 years.



7. What fuel are the affected customers using right now, propane, natural gas, or other fuel?

Based on Market Research obtained in spring 2022, research results indicate that the primary energy source of heat in the Eganville area is Propane (47%), followed by Oil (26%). Wood, Electricity and Geothermal/Ground Source Heat Pumps are used by some households (15%, 5% and 3% respectively).

8. Please provide a High Consequence Area study, if applicable, for this application

#### N/A

9. Please confirm that this project will be designed, constructed, inspected, and maintained, in accordance with CSA Z662-19 (Oil and Gas Pipeline Systems).

#### Confirmed

10. Please confirm that this project will be designed, constructed, inspected, and maintained, in accordance with Enbridge's construction and maintenance procedures.

#### Confirmed

11. Please provide the design and piping specifications related to this project.

See attached TSSA Application - Eganville Preliminary Pipe Specs\_Rev0

12. What is the length of the proposed pipeline installation?

See attached TSSA Application – Eganville Preliminary Pipe Specs\_Rev0

13. What is the pipe material and its standards?

See attached TSSA Application – Eganville Preliminary Pipe Specs\_Rev0

14. What are the pipe wall thicknesses?

See attached TSSA Application – Eganville Preliminary Pipe Specs\_Rev0

15. What is the maximum operating pressure of the pipeline systems related to this project?

See attached TSSA Application – Eganville Preliminary Pipe Specs\_Rev0

16. When is the approximate date for the completion of this project and natural gas delivery to the customers? Q4 2025, dependant on OEB LTC approval



17. Appliance inspection and suitability of the appliances for natural gas delivery is very important. When will the appliance inspection report will be available to confirm that it has been inspected that the appliances are suitable for natural gas use?

In accordance with section 7 of Ontario Regulation 210/01: Oil and Gas Pipeline Systems (Hyper link: https://www.ontario.ca/laws/regulation/010210) Enbridge, as a gas distributor, performs the initial putting into use appliance inspection before delivering the gas to the customers for the first time.

Enbridge confirms that Enbridge authorized personnel will inspect the system, installation and appliances prior to turning on the gas connection for the first-time to customers of the new expansion system, in accordance with O.Reg 212/01, CSA B149.1 and the appliance manufacturer's instruction manual.

18. Will excess flow valve(s) be installed for the new customers as part of this project?

EFVs will be installed as applicable based on company and code requirements, which will depend on system pressure and customer loads.

19. Please provide the construction schedule of this project. As part of audit of this project, TSSA might select to witness pressure test of some lines.

See attached Eganville Schedule

20. Could you please confirm that all pressure carrying components are rated for the design and test pressure that they are exposed to?

#### Confirmed

21. Could you please confirm that all components that come into contact with the service fluid are compatible with the service fluid?

#### Confirmed

22. Could you please confirm that all environmental permits and approvals will be obtained for this project?

Confirmed



Eganville Community Expansion Project

Last Updated: 7/10/2023

## **Preliminary Design & Pipe Specifications**

#### Supply Lateral

#### Pipe Specifications: Approximately 21.4 km of NPS 8 plastic

Size	-	NPS 8
Outside Diameter	-	219.1 mm
Wall Thickness	-	16.2 mm
Standard Dimension Ratio (SDR)	-	13.5
Pressure Class	-	Intermediate pressure polyethylene
Material	-	Plastic (PE 2708)
Maximum Operating Pressure	-	550 kPa (80 psi)
Туре	-	Medium Density PE
Description	-	C.S.A. Standard B137.4, latest edition
Test Medium	-	Air or Nitrogen
Test Pressure (Min/Max)	-	770 / 1050 kPa
Test Duration	-	8 hrs. for EGI Approved Digital Instrument / 24 hrs. for EGI- approved Mechanical Pressure and Temperature Chart Recorder

#### Pipe Specifications: Approximately 1.4 km of NPS 6 high pressure plastic

Size	-	NPS 6
Outside Diameter	-	168.3 mm
Wall Thickness	-	15.3 mm
Standard Dimension Ratio (SDR)	-	11
Pressure Class	-	High pressure polyethylene
Material	-	Plastic (PE 2708)
Maximum Operating Pressure	-	690 kPa (100 psi)
Туре	-	Medium Density PE
Description	-	C.S.A. Standard B137.4, latest edition
Test Medium	-	Air or Nitrogen
Test Pressure (Min/Max)	-	966 / 1050 kPa
Test Duration	-	8 hrs. for EGI Approved Digital Instrument / 24 hrs. for EGI- approved Mechanical Pressure and Temperature Chart Recorder

#### Pipe Specifications: Approximately 11.3 km of NPS 4 high pressure plastic

Size	-	NPS 4
Outside Diameter	-	114.3 mm
Wall Thickness	-	10.4 mm
Standard Dimension Ratio (SDR)	-	11
Pressure Class	-	High pressure polyethylene
Material	-	Plastic (PE 2708)
Maximum Operating Pressure	-	690 kPa (100 psi)
Туре	-	Medium Density PE
Description	-	C.S.A. Standard B137.4, latest edition
Test Medium	-	Air or Nitrogen
Test Pressure (Min/Max)	-	966 / 1050 kPa
Test Duration	-	8 hrs. for EGI Approved Digital Instrument / 24 hrs. for EGI- approved Mechanical Pressure and Temperature Chart Recorder

#### Pipe Specifications: Approximately 7.8 km of NPS 2 high pressure plastic

Size	-	NPS 2
Outside Diameter	-	60.3 mm
Wall Thickness	-	5.5 mm
Standard Dimension Ratio (SDR)	-	11
Pressure Class	-	High pressure polyethylene
Material	-	Plastic (PE 2708)
Maximum Operating Pressure	-	690 kPa (100 psi)
Туре	-	Medium Density PE
Description	-	C.S.A. Standard B137.4, latest edition
Test Medium	-	Air or Nitrogen
Test Pressure (Min/Max)	-	966 / 1050 kPa
Test Duration	-	1 hr. for EGI Approved Digital Instrument / 2 hrs. for Spring Gauge / 24 Hrs. for EGI- approved Mechanical Pressure and Temperature Chart Recorder

#### Filed: 2024-01-12, EB-2023-0201, Exhibit I.STAFF-8, Attachment 1, Page 8 of 9

#### Pipe Specifications: Approximately 0.6 Km of NPS 8 extra-high pressure steel

Size	-	NPS 8
Outside Diameter	-	219.1 mm
Nominal Wall Thickness	-	4.8 mm
Minimum Grade	-	359 MPa
Pressure Class		Extra-High pressure
Material		Steel
Maximum Operating Pressure		4500 kPa (650 psi)
Туре	-	Electric Resistance Weld or Seamless
Description	-	C.S.A. Standard Z245.1 or API 5L , latest editions
Category	-	Cat. I, M5C
Coating	-	Dual Fusion Bond Epoxy (Abrasion-Resistant Overcoat)

#### Pipe Specifications: Approximately 0.96 km of NPS 6 extra-high pressure steel

Size	-	NPS 6
Outside Diameter	-	168.3 mm
Nominal Wall Thickness	-	4.8 mm
Minimum Grade	-	359 MPa
Pressure Class		Extra-High pressure
Material		Steel
Maximum Operating Pressure		4500 kPa (650 psi)
Туре	-	Electric Resistance Weld or Seamless
Description	-	C.S.A. Standard Z245.1 or API 5L , latest editions
Category	-	Cat. I, M5C
Coating	-	Dual Fusion Bond Epoxy (Abrasion-Resistant Overcoat)

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Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-9 Page 1 of 1

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

#### Reference:

Exhibit F, Tab 1, Schedule 1, page 5, paragraphs 13-14

#### Preamble:

Enbridge Gas stated that a Cultural Heritage Report will be completed and submitted to the Ministry of Citizenship and Multiculturalism (MCM) prior to the start of construction.

Enbridge Gas also stated that a Stage 2 Archaeological Assessment (AA) will be completed, submitted and approved by the MCM prior to the start of construction.

#### Question(s):

- a) Please provide an update on the Cultural Heritage Report.
- b) Please provide an update on the Stage 2 AA and indicate when Enbridge Gas expects to receive approval from the MCM.

#### Response:

- a) The Cultural Heritage Report (CHR) is anticipated to be completed by February 2024. Enbridge Gas will submit the CHR to the MCM when complete.
- b) The remaining fieldwork for the Stage 2 AA is in progress. The work completed in 2023 is being compiled and anticipated to be reported and submitted to MCM by March 2024. The remaining fieldwork is expected to be completed in the spring of 2024, with this specific sub-set of work reported separately and expected to be submitted to the MCM by early summer 2024.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-10 Page 1 of 1

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

## Reference:

Exhibit F, Tab 1, Schedule 1, Attachment 2

#### Preamble:

The Environmental Report was circulated to the Ontario Pipeline Coordinating Committee (OPCC) and municipalities on April 4, 2023. Enbridge Gas filed the comments received on the Environmental Report as of July 28, 2023

#### Question(s):

a) Please file an update to Attachment 2 with any additional OPCC comments received since July 28 ,2023

#### Response:

a) Enbridge Gas has not received additional OPCC comments since the time the Environmental Report was filed.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-11 Page 1 of 2

## ENBRIDGE GAS INC.

### Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

#### Reference:

Exhibit G, Tab 1, Schedule 1, page 1, paragraphs 2-3

#### Preamble:

Enbridge Gas stated that there are specific segments of the proposed route on McGaghran Road in the Township of Admaston/Bromley that are owned by the Township and others a "forced road", deeded to private landowners and partially maintained by the Township as a public highway. Enbridge Gas will work with the Township and private landowners to determine if a municipal permit or permanent easement will be required on these segments.

Enbridge Gas stated that temporary working areas may be required along the preferred route where the road allowance is too narrow or confined to facilitate construction and that temporary working rights will be negotiated where required.

#### Question(s):

- a) Please confirm whether Enbridge Gas has determined the requirement for any other permanent easements for the project aside from those potentially on McGaghran Road. Please also provide an update, if any, on the requirement for any permanent easements on McGaghran Road.
- b) Please provide an update on the status and prospect of remaining land negotiations where permanent and temporary easements are required.
- c) Please discuss any concerns raised by landowners and Enbridge Gas's responses to any concerns.
- d) Please discuss any expected delays with respect to obtaining the required land rights for the project and its impact to the construction starts and in-service dates.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-11 Page 2 of 2

#### Response:

a) Enbridge Gas has determined that no other permanent easement is expected for the pipeline facility at this time. There is potential for a permanent easement or land acquisition at the station location (ancillary facility), however, the exact requirements will be determined once the station design is finalized.

Enbridge Gas is currently engaged in ongoing discussion with the Township of Admaston/Bromley to determine permittable limits of those sections of the McGaghran Road known to be a forced road. Upon determination and if required, negotiation with private landowners requesting permanent and temporary easements will commence.

- b) Enbridge Gas plans to commence negotiations with directly affected landowners regarding permanent and temporary easements early in 2024 and upon determination of the permittable limits of those sections of McGaghran Road known as a forced road.
- c) No concerns have been raised by landowners to date.
- d) Enbridge Gas does not expect delays with obtaining the required land rights for the Project.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-12 Page 1 of 2

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

#### Reference:

Exhibit G, Tab 1, Schedule 1, page 1, paragraphs 2-3

#### Preamble:

Enbridge Gas identified the potential permits/approvals that may be required for the project at the reference above and in the Environmental Report. Enbridge Gas also stated that other authorizations, notifications, permits and/or approvals may be required in addition to the ones listed.

#### Question(s):

- a) Please advise whether Enbridge Gas has identified any other permits/approvals required for the project other than those listed in the application. If so, please provide a description of the required permit/approval.
- b) Please provide an update on the status of each permit/approval including when Enbridge Gas expects to receive the required permit/approval. Please discuss any anticipated potential delays that may affect the construction schedule for the project.

#### Response:

- a) No additional permits/approvals have been identified for the Project.
- b) Please see Table 1, which includes the required permits identified for the Project with an update on the status and anticipated timing of receipt or approval.

## Table 1

Permit/Approval Status

Line No	Permit/Approval	Administering Agency	Status	Anticipated Receipt
1	Clearing of vegetation in accordance with the Migratory Bird Convention Act, 1994 (MBCA)	Environment and Climate Change Canada (ECCC)	Not Required	Not Applicable
2	Review and authorization under the Fisheries Act, 1985	Fisheries and Oceans Canada	Not Required	Not Applicable
3	Crossing Approval	Infrastructure Ontario	Not Required	Not Applicable
4	Crossing Approval	Hydro One Networks Inc. (Hydro One)	Not Started	Q2 2024
5	Review of Built Heritage and Cultural Heritage Landscapes under the OHA	Ministry of Citizenship and Multiculturalism	In Progress	Q2 2024
6	Permitting or registration under the Endangered Species Act (ESA) (2007)	Ministry of Environment, Conservation and Parks (MECP)	In Progress	Q1 2024
7	Work permit under the <i>Public Lands Act</i>	Ministry of Natural Resources and Forestry (MNRF)	Not started	Q2 2024
8	Letter of Opinion	Ministry of Energy (MOE)	In Progress	See response to I.STAFF-13 part c).
9	Crossing Agreement	TC Energy	In Progress	Q4 2024

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-13 Plus Attachments Page 1 of 2

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Ontario Energy Board Staff (STAFF)

#### Interrogatory

## Reference:

Exhibit H, Tab 1, Schedule 1, Attachments 7 and 8

#### Preamble:

The Ministry of Energy's delegation letter identified nine Indigenous communities that Enbridge Gas should consult in relation to the project:

- Algonquins of Pikwakanagan
- Algonquins of Ontario
- Alderville First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island
- Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation

Enbridge Gas filed a summary of the Indigenous consultation activities. The information Enbridge Gas filed at Attachments 7 and 8 describes the Indigenous consultation up to August 1, 2023.

#### Question(s):

- a) Please provide an update on Indigenous consultation activities set out in Attachments 7 and 8, summarizing any issues and concerns raised and how these are being addressed. Please include any supporting documentation, i.e. email correspondence that is referenced.
- b) Please update the evidence with any correspondence between the Ministry of Energy and Enbridge Gas since the application was filed, regarding the Ministry of Energy's review of Enbridge Gas's consultation activities.
- c) Please indicate when Enbridge Gas expects to receive a letter of opinion from the Ministry of Energy.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.STAFF-13 Plus Attachments Page 2 of 2

d) Please comment on any issues arising from the project that could adversely impact constitutionally protected Aboriginal or treaty rights. Have any Indigenous communities identified any Aboriginal or treaty rights that could be adversely impacted by the project? If any potential adverse impacts have been identified, please comment on what Enbridge Gas is doing to address these issues.

#### Response:

- a) An updated Indigenous Consultation Summary can be found at Attachment 1 and an updated Indigenous Consultation Log can be found at Attachment 2 to this response. Attachment 3 contains comments received from 4 Directions/APFN in relation to the environmental report for the Project. All other supporting documentation is included in Attachment 2.
- b) Please see Attachment 4 to this response for correspondence with the Ministry of Energy (MOE).
- c) On December 12, 2023, the MOE advised they were in the process of doing additional follow-ups to the communities who they hadn't spoken with and expect to be in a position to provide the letter of opinion soon.
- d) Enbridge Gas has received comments on the Project from AOO, AOP and CLFN/HFN. These comments pertained to concerns around inclusion of cultural knowing and being, route selection, wetlands and watercourse crossings and mitigation measures. Enbridge Gas responded to a number of comments and recommendations raised by the First Nations identified in the MOE's Delegation letter. No specific potential impacts of the Project on either asserted or established rights have been raised; however, Enbridge Gas expects that with the implementation of its proposed mitigation measures all potential concerns should be addressed. Enbridge Gas will continue to engage with each of the nine First Nation communities identified by the MOE as being potentially affected as appropriate throughout the lifecycle of the Project.

#### INDIGENOUS CONSULTATION REPORT: SUMMARY TABLES

#### As of December 13, 2023

Alderville First Nation (Al	N)	
Was project information provided to the community?	⊠ Yes □ No	<ul> <li>Enbridge Gas has provided AFN with the following information: <ul> <li>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.</li> <li>Maps of the Project location.</li> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> <li>Application information regarding the leave to construct with the Ontario Energy Board ("OEB") regarding the Project</li> </ul> </li> <li>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.</li> <li>Capacity funding has been offered to support activities such as timely technical reviews of documents, participation in field work associated with the proposed Project, and to engage in meaningful consultation.</li> </ul>
Was the community responsive/did you have direct contact with the community?	⊠ Yes □ No	AFN and Enbridge Gas have exchanged emails regarding the Project.
Did the community members or representatives have any questions or concerns?	□ Yes ⊠ No	concerns.
Does the community have any outstanding concerns?	□ Yes ⊠ No	As of December 13, 2023, AFN has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
Algonquins of Ontario (A	00)	
Was project information provided to the community?	⊠ Yes □ No	<ul> <li>Enbridge Gas has provided AOO with the following information: <ul> <li>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.</li> <li>Maps of the Project location.</li> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> <li>Application information regarding the leave to construct with the OEB regarding the Project</li> </ul> </li> <li>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.</li> </ul>

		Capacity funding has been offered to support activities such as timely technical reviews of documents, 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	AOO and Enbridge Gas representative have exchanged emails and met to discuss the Project.
Did the community members or representatives have any questions or concerns?	⊠ Yes □ No	On August 4, 2022, the AOO representative advised that they would be interested in reviewing the AA and the Duty to Consult ("DTC") letter. Enbridge Gas provided this information to AOO. On August 17, 2022, the AOO representative advised that they were interested in participating in the Project to discuss potential adverse effects to AOO rights and title, potential mitigation measures, and requested a meeting to discuss overall Project impacts. Enbridge Gas advised they would provide all Project information and set up regular meetings to discuss the Project. On July 5, 2023, the AOO representative provided comments on the environmental report. AOO commented that the Project is within the AOO settlement area and therefore, they should be consulted first on Projects within this area. AOO also raised concerns regarding the Project route, water crossings, and species at risk. Enbridge Gas advised that they are currently working on responding to comments received by AOO on the environmental report. On October 12, 2023, Enbridge Gas provided AOO with responses to their comments on the environmental report.
Does the community have any outstanding concerns?	□ Yes ⊠ No	As of December 13, 2023, AOO has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
Algonquin of Pikwakanag	an (AOP)	
Was project information provided to the community?	⊠ Yes □ No	<ul> <li>Enbridge Gas has provided AOP with the following information: <ul> <li>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.</li> <li>Maps of the Project location.</li> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> <li>Application information regarding the leave to construct with the OEB regarding the Project</li> </ul> </li> <li>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.</li> </ul>

		Capacity funding has been offered to support activities such as timely technical reviews of documents, 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	AOP and Enbridge Gas representative have exchanged emails and met to discuss the Project.
		On February 14, 2023, an AOP representatives inquired as to how Enbridge Gas would address costs that went above the allotted capacity budget, how Enbridge Gas would address disputed items or costs, and how confidentiality regarding community knowledge would be handled. Enbridge Gas advised that they would provide the Project timeline and associated tasks. Enbridge Gas advised that they would address AOP's comments in the AA report.
		On July 27, 2023, AOP requested they complete an environmental verification on the environmental report to verify information in the report.
		On October 5, 2023, AOP inquired about the preferred route, how it was determined, and if any Indigenous communities were consulted during the route selection process. AOP advised that First Nation Consultation on the Project so far has been inadequate and advised that they are experienced in providing input to proposed developments early on and would have like to provide input to the route selection process.
Did the community members or representatives have any questions or concerns?	⊠ Yes □ No	On October 16, 2023, an Enbridge Gas representative provided a response to the inquiry about the preferred route. The Enbridge Gas representative advised that the preferred route was selected to provide safer work conditions for workers, favorable ground conditions (less rock), and maximize customer capture. The Enbridge Gas representative advised the alternate route was not chosen due to it being strongly opposed by the MTO (no permit would be granted), presence of substantial rock (blasting would be required, creating environmental disturbance), and it could potentially compromise the safety/integrity of the pipeline long term (not being suitable ground conditions for plastic pipe).
		On November 16, 2023, Enbridge Gas and AOP/4D had a virtual meeting to discuss the Project. AOP expressed concerns regarding impacts to water crossings and wetlands, lack of clarity of how the rights would be considered throughout the Project lifecycle and cumulative effects. AOP/4D advised they would be sending Enbridge Gas their comments on the environmental report. Enbridge Gas advised they would address their concerns then.
		On December 13, 2023, AOP provided Enbridge Gas with their comments on the environmental report. AOP expressed concerns regarding AOP cultural knowing and being, route selection, wetlands and watercourse crossings, species, woodlots, impacts on reptiles and amphibians, erosion and sediment control, deer wintering areas.
Does the community have any outstanding concerns?	□ Yes ⊠ No	Enbridge Gas is working to address the comments received from AOP on the environmental report. Enbridge Gas will continue to engage with the community in relation to the Project.
Beausoleil First Nation (B	FN)	<u> </u>

⊠ Yes □ No	<ul> <li>Enbridge Gas has provided BFN with the following information: <ul> <li>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.</li> <li>Maps of the Project location.</li> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> <li>Application information regarding the leave to construct with the OEB regarding the Project</li> </ul> </li> <li>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.</li> <li>Capacity funding has been offered to support activities such as timely technical reviews of documents, participation in field work associated with the proposed</li> </ul>
	Project, and to engage in meaningful consultation.
□ Yes ⊠ No	BFN has not raised any questions or concerns regarding the Project.
	BFN has not raised any questions or concerns regarding the Project.
□ Yes	
🖾 No	
	As of December 13, 2023, BEN has not identified any outstanding concerns regarding
□ Yes	the Project. Enbridge Gas will continue to engage with the community in relation to
⊠ No	the Project.
land First Na	ation (CGIFN)
	Enbridge Gas has provided CGIFN with the following information:
⊠ Yes □ No	<ul> <li>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.</li> <li>Maps of the Project location.</li> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> <li>Application information regarding the leave to construct with the OEB regarding the Project</li> <li>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.</li> <li>Capacity funding has been offered to support activities such as timely technical reviews of documents, participation in field work associated with the proposed</li> </ul>
	<ul> <li>∑ Yes</li> <li>No</li> <li>Yes</li> <li>∑ No</li> <li>☐ Yes</li> <li>∑ No</li> <li>☐ Yes</li> <li>∑ No</li> <li>☐ Yes</li> <li>∑ No</li> </ul>

Was the community		CGIFN and Enbridge Gas have exchanged emails regarding the Project.	
responsive/did you	🖾 Yes		
have direct contact	🗆 No		
with the community?			
Did the community		CGIFN has not raised any questions or concerns regarding the Project.	
members or	🗆 Yes		
representatives have 🛛 🛛 No			
any questions or			
concerns?			
		As of December 13, 2023, CGIFN has not identified any outstanding concerns	
Does the community	⊔ Yes	regarding the Project. Enbridge Gas will continue to engage with the community in	
have any outstanding	🖾 No	relation to the Project.	
concerns?			
Chippewas of Rama (CRFI	N)		
		Enbridge Gas has provided CRFN 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.	
		<ul> <li>Letter containing information on the Virtual Open House.</li> </ul>	
		• Environmental Report, providing information about the potential effects of	
Was project	⊠ Voc	the Project on the Environment, including archaeological assessments.	
information provided		Application information regarding the leave to construct with the OEB	
to the community?		regarding the Project	
		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	
		Project and to oppage in meaningful consultation	
Maatha aan ita		Project, and to engage in meaningful consultation.	
was the community	🖾 Yes	Project	
responsive/did you	□ No	Project.	
with the community?			
Did the community:		As of December 12, 2022, CREN besided and with any further questions or	
mambars or		concerns	
roprosontativos have		concerns.	
any questions or	K NO		
concerns?			
		As of December 12, 2023, CREN has not identified any outstanding concerns	
Dees the source 'to		As of December 15, 2025, CAFIN has not identified dry Outstanding Concerns	
boes the community		regarding the Project. Libridge Gas will continue to engage with the continuantly in	
nave any outstanding	凶 No		
concerns?			
Curve Lake First Nation (C	Curve Lake First Nation (CLFN)		
		Enbridge Gas has provided CLFN with the following information:	
Was project	🖾 Yes	• A detailed description of the nature and initial scope of the Project. This	
information provided	on provided Included a list of other provincial or federal approvals that may be required		
to the community?		for the Project to proceed.	
		Maps of the Project location.	

Was the community responsive/did you have direct contact with the community?	⊠ Yes □ No	<ul> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> <li>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.</li> <li>Capacity funding has been offered to support activities such as timely technical reviews of documents, participation in field work associated with the proposed Project, and to engage in meaningful consultation.</li> <li>Enbridge Gas and a CLFN representative have exchanged emails regarding the Project.</li> </ul>
Did the community members or representatives have any questions or concerns?	⊠ Yes □ No	On July 6, 2023, a CLFN/4D representative provided comments on their review of the environmental report. CLFN expressed concerns related to waterways, species at risk, culturally significant species, and mitigation measures. CLFN also expressed concerns regarding the lack of Indigenous knowledge and western perspective in the environmental report. On October 30, 2023, Enbridge Gas responded to CLFN's comments on the environmental report. On October 30, 2023, Enbridge Gas responded to the concerns raised relating to notifying CLFN/4D if unexpected adverse impacts to the quality and quantity of groundwater in the area were to occur, providing the opportunity for CLFN/4D monitors to be present when mitigation measures are put in place (silt fencing).
Does the community have any outstanding concerns?	□ Yes ⊠ No	As of December 13, 2023, CLFN has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
Hiawatha First Nation (H	FN)	
Was project information provided to the community?	⊠ Yes □ No	<ul> <li>Enbridge Gas has provided HFN with the following information: <ul> <li>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.</li> <li>Maps of the Project location.</li> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> <li>Application information regarding the leave to construct with the OEB regarding the Project</li> </ul> </li> <li>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.</li> <li>Capacity funding has been offered to support activities such as timely technical reviews of documents, participation in field work associated with the proposed Project, and to engage in meaningful consultation.</li> </ul>

Was the community responsive/did you have direct contact with the community?	⊠ Yes □ No	Enbridge Gas and an HFN representative have exchanged emails regarding the Project.			
Did the community members or representatives have any questions or concerns?	⊠ Yes □ No	On May 17, 2023, HFN indicated they would be providing comments on the environmental report. On July 6, 2023, a 4D representative, on behalf of CLFN and HFN, provided comments on their review of the environmental report. HFN expressed concerns related to waterways, species at risk, culturally significant species, and mitigation measures. HFN also expressed concerns regarding the lack of Indigenous knowledge and western perspective in the environmental report. On October 30, 2023, Enbridge Gas responded to HFN's comments on the environmental report. Enbridge Gas responded to the concerns raised relating to notifying CLFN/4D if unexpected adverse impacts to the quality and quantity of groundwater in the area were to occur, providing the opportunity for CLFN/4D monitors to be present when mitigation measures are put in place (silt fencing).			
Does the community have any outstanding concerns?	□ Yes ⊠ No	As of December 13, 2023, HFN has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.			
Mississaugas of Scugog Is	land First Na	ation (MSIFN)			
Was project information provided to the community?	⊠ Yes □ No	<ul> <li>Enbridge Gas has provided MSIFN with the following information: <ul> <li>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.</li> <li>Maps of the Project location.</li> <li>Letter containing information on the Virtual Open House.</li> <li>Environmental Report, providing information about the potential effects of the Project on the Environment, including archaeological assessments.</li> </ul> </li> <li>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.</li> <li>Capacity funding has been offered to support activities such as timely technical reviews of documents, participation in field work associated with the proposed Project, and to engage in meaningful consultation.</li> </ul>			
Was the community responsive/did you have direct contact with the community?	⊠ Yes □ No	Enbridge Gas and an MSIFN representative have exchanged emails and met in person regarding the Project.			
Did the community members or representatives have any questions or concerns?	⊠ Yes □ No	On August 5, 2022, MSIFN requested a map inclusive of planned water crossings, information on federal permits and approvals, and a list of Indigenous communities involved in consultation on the Project. On April 6, 2023, MSIFN advised that they would not comment on the Project due to location and time restraints. Enbridge Gas advised that there was capacity funding available to help in their review.			

Does the community have any outstanding concerns?	As of December 13, 2023, MSIFN has not identified any outstanding concerns regarding the Project. Enbridge Gas will continue to engage with the community in relation to the Project.
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Enbridge Gas Inc. Indigenous Consultation Log
Eganville Community Expansion Project ("Project")
Log updated as of December 13, 2023

Aldervil	Alderville First Nation ("AFN")					
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Consultation Activity	Summary of Community's Consultation Activity	Issues or Concerns raised and how addressed by	
1.16	September 1, 2023	Email	A Stantec representative, acting on behalf of Enbridge Gas, emailed the AFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked AFN to advise if they were interested in participating in the fieldwork.			
1.17	October 30, 2023	Email	An Enbridge Gas representative emailed the AFN representative to advise that Enbridge Gas filed the application for leave to construct the Project with the Ontario Energy Board ("OEB") . The Enbridge Gas representative advised that the OEB directed Enbridge Gas to notify all Indigenous communities with lands or interest in the lands directly affected by the proposed pipeline and related facilities. The Enbridge Gas representative attached the OEB's Notice, along with Enbridge Gas' Application and evidence filed with the OEB.			
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Consultation Activity	Summary of Community's Consultation Activity	Issues or Concerns raised and how addressed by	
2.132	September 1, 2023	Email	A Stantec representative emailed the AOO representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked AOO to			
			advise if they were interested in			
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			participating in the fieldwork.			
2.133	September 5, 2023	Email		An AOO representative emailed the Stantec representative to thank them for the notification of work and advised that they require some paperwork to be completed to find a AOO archaeological monitor to participate.		
2.134	October 12, 2023	Email	An Enbridge Gas representative emailed the AOO representative to provide them with responses to AOO's comments on the ER dated July 5, 2023.		See attached line- item 2.134. AOO raised concerns over the lack of inclusion of traditional knowledge, route selection, watercourse crossings, species at risk. Enbridge Gas responded to the concerns raised regarding watercourse crossings being completed by HDD and having First Nation's monitors if fish rescue work is required.	
2.135	October 17, 2023	Email	A Stantec representative emailed an AOO representative on behalf of Enbridge Gas regarding Stage 2 fieldwork and to inquire if they would be interested in participating in the fieldwork.			
2.136	October 17, 2023	Email		An AOO representative emailed the Stantec representative to ask if they could fill a form with the up- to-date information on the Project. The AOO representative sought clarification regarding travel and accommodations for Stantec and others participating in the fieldwork.		
2.137	October 18, 2023	Email	A Stantec representative emailed an AOO representative to provide completed paperwork and to provide travel/accommodations			

			information for those		
			participating in the fieldwork.		
2.138	October 18, 2023	Email		An AOO representative emailed the Stantec representative to inquire about the requested paperwork and asked that they resend it.	
2.139	October 18, 2023	Email	A Stantec representative emailed an AOO representative to provide them the requested document.	,	
2.140	October 30, 2023	Email	An Enbridge Gas representative emailed the AOO representative to advise that Enbridge Gas filed an application with the OEB for leave to construct regarding the Project. The Enbridge Gas representative advised that the OEB directed Enbridge Gas to notify all Indigenous communities with lands or interest in the lands directly affected by the proposed pipeline and related facilities. The Enbridge Gas representative attached the OEB's Notice, along with Enbridge Gas' Application and evidence filed with the OEB.		
Algonqu	uins of Pikwaka	nagan ("AO	Ρ")		
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Consultation Activity	Summary of Community's Consultation Activity	Issues or Concerns raised and how addressed by
3.98	September 1, 2023	Email	A Stantec representative emailed the AOP representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked AOP to advise if they were interested in participating in the fieldwork.		
3.99	October 5, 2023	Email		An AOP representative emailed the Enbridge Gas representative to discuss the Environmental Report for the Project ("ER"). The AOP representative requested more time to complete their review of the ER. The AOP representative inquired about how the	See attached line- item 3.99. AOP inquired about the preferred route, how it was determined, and if any Indigenous communities were consulted

				Project was chosen and whether any First Nations were consulted during the route selection process. The AOP representative commented that that First Nation consultation on the Project so far has been inadequate. The AOP representative advised that they are experienced in providing input on proposed developments early on and would have liked to provide input on the route selection process if given the opportunity. The AOP representative advised that they are looking forward to further work and to many future meaningful discussions.	during the route selection process. AOP advised that First Nation Consultation on the Project so far has been inadequate and indicated that they are experienced in providing input on proposed developments early on and would have like to provide input to the route selection process. Enbridge Gas responded on October 16, 2023.
3.100	October 6, 2023	Email	An Enbridge Gas representative emailed the AOP representative to confirm receipt of the email and thanked them for providing the feedback. The Enbridge Gas representative suggested that they set up a call with the Enbridge Gas Project team to discuss the route selection.		See attached line item 3.100.
3.101	October 16, 2023	Email	An Enbridge Gas representative emailed the AOP representative in response to comments received on October 5, 2023. The Enbridge Gas representative advised that the preferred route was selected to provide safer work conditions for workers, favorable ground conditions (less rock), and maximize customer capture. The Enbridge Gas representative advised the alternate route was not chosen due to it being strongly opposed by the MTO (no permit would be granted), presence of substantial rock (blasting would be required, creating environmental disturbance), and it could potentially compromise the safety/integrity of the pipeline long term (not being suitable ground conditions for plastic pipe).		

3.102	October 17, 2023	Email	A Stantec representative emailed an AOP representative on behalf of Enbridge Gas regarding Stage 2 fieldwork and to inquire if they would be interested in participating in the fieldwork		
3.103	October 18		participating in the fieldwork.	An AOP representative emailed the Stantec and Enbridge Gas representatives to advise they will not have anyone available for the week of the 23 <sup>rd</sup> . The AOP representative advised that if work continues into the following week, AOP should have someone available then. The AOP representative asked if they could be kept updated with best estimates on timelines when work begins, and AOP could try to get someone there for the end of the work.	
3.104	October 19, 2023	Email		An AOP representative emailed the Enbridge Gas representative to thank them for the Stage 2 fieldwork and offer to participate. The AOP representative inquired about the possibility of meeting on October 27, 2023 to provide an update of AOP's review and if requested Enbridge Gas provide a suitable time to meet.	
3.105	October 19, 2023	Email	An Enbridge Gas representative emailed the AOP representative to advise they were not available on October 27 and offered an alternate time of November 1, 2023.		
3.106	October 30, 2023	Email	An Enbridge Gas representative emailed the AOP representative to advise that Enbridge Gas filed an application with the OEB for leave to construct regarding the Project. The Enbridge Gas representative advised that the OEB directed Enbridge Gas to notify all Indigenous communities with lands or interest in the lands directly affected by the proposed pipeline and related facilities. The Enbridge Gas representative		

			attached the OEB's Notice, along with Enbridge Gas' Application and evidence filed with the OEB.		
3.107	November 3, 2023	Email	An Enbridge Gas representative emailed the AOP representative to follow up on the October 19, 2023 email regarding setting up a meeting time.		
3.108	November 6, 2023	Email		An AOP representative emailed the Enbridge Gas representative to advise that 4 Directions ("4D") have been included and that they are trying to schedule a meeting with them.	
3.109	November 6, 2023	Email		The 4D representative emailed the AOP and Enbridge Gas representatives to advise they will confirm their availability to meet.	
3.110	November 6, 2023	Email	An Enbridge Gas representative emailed the AOP and 4D representative to confirm receipt of the email.		
3.111	November 8, 2023	Email		An AOP representative emailed the Enbridge Gas representative to provide a meeting time.	
3.112	November 9, 2023	Email		An AOP representative emailed the Enbridge Gas representative to see if the scheduled time would still work and to advise they could move the date to next week if that would work better.	
3.113	November 9, 2023	Email	An Enbridge Gas representative emailed the AOP representative to request a telephone call to discuss the meeting time.		
3.114	November 9, 2023	Phone Call		An AOP representative called the Enbridge Gas representative to schedule a meeting for November 16, 2023	
3.115	November 9, 2023	Email	An Enbridge Gas representative emailed the AOP representative to thank them for the phone call regarding the Project.		
3.116	November 16, 2023	Meeting	An Enbridge Gas representative met with AOP and 4D representatives virtually to discuss the Project. Topics included AOP territory maps, capacity funding for the Project, environmental report ("ER"), and mitigations.	AOP and 4D representatives raised concerns around discrepancies they found between the ER and AOP observations. AOP advised that they had concerns around impacts to water crossings and wetlands, lack of clarity of how their rights	AOP and 4D representatives had concerns around impacts to water crossings and wetlands, lack of clarity as to how their rights would be

				<ul> <li>would be considered throughout the Project lifecycle and cumulative effects of the Project. AOP and 4D representatives inquired as to how this Project would affect climate change.</li> <li>AOP and 4D representatives provided mitigation measures to address their concerns. AOP suggested further studies be completed throughout the four seasons.</li> <li>AOP and 4D advised that their ER comments would be provided to Enbridge Gas soon</li> </ul>	considered throughout the Project lifecycle and cumulative effects. Enbridge Gas acknowledged their concerns and would address them when the ER comments were received from AOP/4D.
3.117	December 12, 2023	Email	An Enbridge Gas representative emailed the AOP representative to follow up on the status of their ER comments.		
3.118	December 13, 2023	Email		An AOP (4D) representative emailed the Enbridge Gas representative to provide their comments on the ER for the Project.	See Attachment 3 to this Exhibit. AOP expressed concerns regarding AOP cultural knowing and being, route selection, wetlands and watercourse crossings, species, woodlots, impacts on reptiles and amphibians, erosion and sediment Control and deer wintering areas.
3.119	December 13, 2023	Email	An Enbridge Gas representative emailed the AOP representative to acknowledge their comments and to advise that Enbridge Gas would begin working on responses.		
Beausol	eil First Nation	(Christian Is	land) ("BFN")		
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Consultation Activity	Summary of Community's Consultation Activity	Issues or Concerns raised and how addressed by
4.9	September 1, 2023	Email	A Stantec representative emailed the BFN to advise that they would be commencing the Stage 2 Archaeological Assessment		

			("AA") for the Project. The		
			Stantec representative advised		
			that they are anticipating the		
			fieldwork to begin in late		
			September or October and that it		
			is expected to take 8 days. The		
			Stantec representative asked BEN		
			to advise if they were interested		
			in participating in the fieldwork		
4.4.0	Ostalas 20	E	In participating in the neidwork.		
4.10	October 30,	Email	An Enbridge Gas representative		
	2023		emailed the BFN representative		
			to advise that Enbridge Gas filed		
			an application with the OEB for		
			leave to construct regarding the		
			Project. The Enbridge Gas		
			representative advised that the		
			OEB directed Enbridge Gas to		
			notify all Indigenous communities		
			with lands or interest in the lands		
			directly affected by the proposed		
			pipeline and related facilities. The		
			Enbridge Gas representative		
			attached the OEB's Notice, along		
			with Enbridge Gas' Application		
			and evidence filed with the OFB		
Chippey	was of Georgina	Island First	Nation ("CGIEN")		1
Line	Date	Nethod	Summary of Enbridge Gas Inc.	Summary of Community's	Issues or
Item			("Enbridge Gas") Consultation	Consultation Activity	Concerns raised
			Activity		and how
			,		
					addressed by
5.12	September	Email	A Stantec representative emailed		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked CGIFN to advise if they were		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked CGIFN to advise if they were interested in participating in the		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked CGIFN to advise if they were interested in participating in the fieldwork.		addressed by
5.12	September 1, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked CGIFN to advise if they were interested in participating in the fieldwork. An Enbridge Gas representative		addressed by
5.12	September 1, 2023 October 30, 2023	Email	A Stantec representative emailed the CGIFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked CGIFN to advise if they were interested in participating in the fieldwork. An Enbridge Gas representative emailed the CGIFN representative		addressed by
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			attached the OEB's Notice, along		
			with Enbridge Gas' Application		
			and evidence filed with the OEB.		
Chippev	vas of Rama Firs	t Nation ("	CRFN")		
Line	Date	Method	Summary of Enbridge Gas Inc.	Summary of Community's	Issues or
Item			("Enbridge Gas") Consultation	Consultation Activity	Concerns raised
			Activity	······	and how
					addressed by
					Enbridge Gas
6.15	September	Email	A Stantec representative emailed		
	1. 2023		the CRFN representative to		
	_,		advise that they would be		
			commencing the Stage 2		
			Archaeological Assessment		
			("AA") for the Project. The		
			Stantec representative advised		
			that they are anticipating the		
			fieldwork to begin in late		
			September or October and that it		
			is expected to take 8 days. The		
			Stantec representative asked		
			CRFN to advise if they were		
			interested in participating in the		
			fieldwork.		
6.16	October 30,	Email	An Enbridge Gas representative		
	2023		emailed the CRFN representative		
			to advise that Enbridge Gas filed		
			an application with the OEB for		
			leave to construct the Project.		
			The Enbridge Gas representative		
			advised that the OEB directed		
			Enbridge Gas to notify all		
			Indigenous communities with		
			lands or interest in the lands		
			directly affected by the proposed		
			pipeline and related facilities. The		
			Enbridge Gas representative		
			attached the OEB's Notice, along		
			with Enbridge Gas' Application		
			and evidence filed with the OEB.		
Curve La	ake First Nation	("CLFN")			
Line	Date	Method	Summary of Enbridge Gas Inc.	Summary of Community's	Issues or
Item			("Enbridge Gas") Consultation	Consultation Activity	Concerns raised
			Activity		and how
					addressed by
7.23	September	Email	A Stantec representative emailed		
	1, 2023		the CLFN representative to advise		
			that they would be commencing		
			the Stage 2 Archaeological		
			Assessment ("AA") for the		
			Project. The Stantec		
			representative advised that they		
			are anticipating the fieldwork to		
			begin in late September or		
			October and that it is expected to		
			take 8 days. The Stantec		
			representative asked CLFN to		

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			advise if they were interested in	
			participating in the fieldwork.	
7.24	October 30,	Email	An Enbridge Gas representative	See attached line-
	2023		emailed the CLFN, HFN, and a 4D	item 7.24.
			representative to provide their	
			responses to comments received	
			on the Project.	CLFN expressed
				concerns
				regarding the lack
				of Indigenous
				knowledge within
				the ER and the
				Western
				perspective taken.
				CLFN had
				concerns related
				to unexpected
				impacts to water
				quality and
				quantity, species
				at risk, culturally
				significant
				species, and
				mitigation
				measures.
				Enbridge Gas
				responded to the
				concerns raised
				and advised that it
				would notify
				CLFN/4D if
				unexpected
				adverse impacts
				to the quality and
				quantity of
				groundwater in
				the area were to
				occur and that it
				would provide the
				opportunity for
				CLFN/4D monitors
				to be present
				when mitigation
				measures are put
				in place (silt
				fencing).

7.25	October 30, 2023	Email	An Enbridge Gas representative emailed the CLFN representative to advise that Enbridge Gas filed an application with the OEB for leave to construct the Project. The Enbridge Gas representative advised that the OEB directed Enbridge Gas to notify all Indigenous communities with lands or interest in the lands directly affected by the proposed pipeline and related facilities. The Enbridge Gas representative attached the OEB's Notice, along with Enbridge Gas' Application and evidence filed with the OEB.		
Hiawath	ha First Nation (	"HFN")			
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Consultation Activity	Summary of Community's Consultation Activity	Issues or Concerns raised and how addressed by
8.20	September 1, 2023	Email	A Stantec representative emailed the HFN representative to advise that they would be commencing the Stage 2 Archaeological Assessment ("AA") for the Project. The Stantec representative advised that they are anticipating the fieldwork to begin in late September or October and that it is expected to take 8 days. The Stantec representative asked HFN to advise if they were interested in participating in the fieldwork.		
8.21	October 30, 2023	Email	An Enbridge Gas representative emailed the CLFN, HFN, and 4D representative to provide their responses to comments received on the Project.		See attached line- item 7.24.
8.22	October 30, 2023	Email	An Enbridge Gas representative emailed the HFN representative to advise that Enbridge Gas filed an application with the OEB for leave to construct the Project. The Enbridge Gas representative advised that the OEB directed Enbridge Gas to notify all Indigenous communities with lands or interest in the lands directly affected by the proposed pipeline and related facilities. The Enbridge Gas representative attached the OEB's Notice, along		

			with Enbridge Gas' Application		
			and evidence filed with the OEB.		
Mississa	augas of Scugog	Island First	Nation ("MSIFN")		
Line	Date	Method	Summary of Enbridge Gas Inc.	Summary of Community's	Issues or
Item			("Enbridge Gas") Consultation	Consultation Activity	Concerns raised
			Activity		and now
0.00		<b>F</b> 1			addressed by
9.29	August 11,	Email	An Enbridge Gas representative		See attached line-
	2025		to inquire about a past omail and		item 9.29.
			to inquire about a past email and		
			provided clarification around		
			MSIEN's requests for a man		
			inclusive of planned water		
			crossings, information on various		
			permits and approvals required.		
			and the list of Indigenous		
			communities Enbridge Gas will be		
			engaging with in relation to the		
			Project.		
9.30	September	Email	A Stantec representative emailed		
	1, 2023		the MSIFN representative to		
			advise that they would be		
			commencing the Stage 2		
			Archaeological Assessment		
			("AA") for the Project. The		
			Stantec representative advised		
			that they are anticipating the		
			fieldwork to begin in late		
			September or October and that it		
			is expected to take 8 days. The		
			Stantec representative asked		
			INISIFN to advise if they were		
			fieldwork		
0.21	Octobor 20	Empil	An Enbridge Cas representative		
9.51	2023	Lillali	emailed the MSIEN		
			representative to advise that		
			Enbridge Gas filed an application		
			with the OEB for leave to		
			construct the Project. The		
			Enbridge Gas representative		
			advised that the OEB directed		
			Enbridge Gas to notify all		
			Indigenous communities with		
			lands or interest in the lands		
			directly affected by the proposed		
			pipeline and related facilities. The		
			Enbridge Gas representative		
			attached the OEB's Notice, along		
			with Enbridge Gas' Application		
			and evidence filed with the OEB.		

### Line-item attachment 2.134

#### Eganville Community Expansion Project – Enbridge Gas Inc. Responses to Algonquins of Ontario

Table 1: Enbridge Gas Inc. (Enbri Eganville Community Expansion	Fable 1: Enbridge Gas Inc. (Enbridge Gas) Responses to Algonquins of Ontario's (AOO) Comments on the Environmental Report (ER) for the Eganville Community Expansion project (Project)					
Item	AOO Comments	Enbridge responses				
Sec. 2.7 Confirmation of the Preferred Route Section 3: Engagement and Consultation Program pg. 25	"As recorded in Appendix B6, engagement and consultation began September 7, 2022, with Curve Lake First Nation" The Algonquins of Ontario (AOO) comprises ten communities that assert unextinguished and constitutionally protected Aboriginal rights, including title to unceded lands and waterways within the Algonquin Settlement Area. The Project (Eganville Community Expansion) is within the AOO settlement Area. The Algonquins of Ontario must be the first to be consulted on projects within their Settlement Area.	Thank you for this comment. Project notification for the Project was sent to Algonquins of Ontario on July 22, 2022, with additional Notice of Commencement on September 7, 2022. Enbridge Gas endeavors to work with all Nations to ensure their Aboriginal and treaty rights are considered and as such will continue to do so throughout the life of the Project and thereafter.				
Sec. 4.5.7 on pg. 67 "Indigenous Land Use and Traditional Knowledge" does not mention the Algonquins of Ontario at all.	Further to Comment 1. Stantec and Enbridge need to respectfully acknowledge that the project is within the Settlement Area of the ten Algonquin Communities in Ontario: Antoine, Algonquins of Pikwakanagan First Nation, Bonnechere, Greater Golden Lake, Kijcho Manito Madaouskarini, Mattaw/ North Bay, Ottawa, Shabot Obaadjiwan, Snimikobi, and Whitney and Area. Although It is appropriate for Stantec to mention that Treaties were signed between the Crown and the Mississauga and Objibwa, this report must also mention that there is an outstanding Algonquin land claim for the Traditional	Enbridge Gas respectfully acknowledges that the Project is in the Settlement Area of the ten Algonquin Communities of Ontario. The AIP is discussed in the ER in Appendix E- Stage 1 Archeological Assessment.				

	Algonquin Territory, including the Study Area,	
	within which there are lands that remain	
	unceded due to the Algonquin not being	
	consulted during the treaty negotiations for	
	the Robison Huron Treaty and the Williams	
	Treaties. The finalized report should also	
	directly mention the Agreement in Principle	
	(AIP) The AIP was signed in 2016 by the	
	Algonguins of Ontario and the Governments of	
	Ontario and Canada to define and guide a	
	medern deu treatu for the Algonguine of	
	Outorie with angelie Algoridums of	
	Ontario with ongoing Aboriginal and treaty	
	rights protected under Section 35 of the	
	Constitution Act, 1982.	
Section 4.5.12 on pg. 73 states,	Although there are no First Nation Reserves	Thank you for providing this information.
"There are no Indigenous	located directly within the Study Area, Stantec	
communities located in the	should note that many members of AOO	
Study Area."	communities are not bound by geographical	
	boundaries. Therefore, members are	
	dispersed across the Settlement Area, Ontario,	
	and beyond. Further, many Pikwakanagan	•
	members live off-reserve, and other	
	Algonquins of Ontario community members	
	live in and around the Town of Eganville and	
	the Township of Bonnechere Valley.	
Appendix A, Figure A.2 Phase 2	Follows Cold Creek Road, which bisects the	Pipelines installed across watercourses on this Project will
– Preliminary Preferred Route	Cold Creek wetland complex. This wetland	use the HDD construction method. For such works,
	complex includes swamps and bogs, which	Enbridge Gas uses internal documents that provide
	may be put at risk by introducing or spreading	general mitigation measures and best management
	invasive species following the projects	practices for personnel and equipment when working in
	disturbance in this area. Additionally, works	the presence of invasive species (including a Clean
	along Municipal right of ways are notorious for	Equipment Protocol) and are intended to be referenced in
	facilitating the introduction of invasive species,	the Environmental Protection Plan (EPP).

	such as Phragmites. This possibility can easily be mitigated by avoiding work in sensitive areas where Phragmites will thrive and rapidly spread (ie. Wetlands).	The Project EPP is intended to address invasive species mitigation measures (i.e. Clean Equipment Protocol), if and where encountered during the construction works.
	The AOO recommends that the project pursue Phase 2 – Alternative Route (AR3) along Highway 60 and north on Bulger Road. Highway 60 is more developed, with fewer wetlands with preexisting disturbance. AR3 would avoid potential impacts on the Cold Creek wetland complex. Although small	Due to the validated significant rock content, it is not feasible nor operationally safe to install the pipeline along the Hwy 60 route. The mitigation measures we are using in the current route will be finalized in subsequent pre- construction studies and will be captured in the EPP.
	unevaluated wetlands and wooded areas exist along Highway 60, the overall risks will be minor and more easily managed. All machinery and heavy equipment must follow the Clean Equipment Protocol for Industry and be regularly cleaned of all vegetative matter before moving to another site to reduce the incidental spread of invasive species seeds and rhizomes. Should invasive species be introduced along any route, a mitigation plan may be necessary to protect sensitive natural heritage features and water courses. In	Thank you for noting the ANSI just south of Mink Lake. It is an earth science ANSI. The Project is proposed to only be located within the existing road allowance. Therefore, the Project is not expected to have an impact on the ANSI feature.
	addition, Stantec and Enbridge should consider the fact that there is a regionally significant Area of Natural and Scientific Interest (ANSI) just south of Mink Lake that the pipeline installation work may impact.	
Section 5.2's Summary Table	Trenched crossings have a higher potential to	Enbridge Gas expects all water crossings will utilize HDD
on pgs. 83 and 85 refer to the	impact Algonquin rights and interests than	methodology, so no impacts from trenching works on
use of trenched crossings.	HDD water crossings	rights / interests are anticipated.
	The AOO must be notified if trenched	
	crossings are required as soon as possible.	

	There may be interest in having AOO	Enbridge Gas uses internal documents that provide for
	representatives on-site to support fish rescue	general identification and mitigation procedures for
	activities, including potential fish transfer	protection of the environment during construction works.
	opportunities to help mitigate and prevent fish	
	mortalities.	If trenched crossings are required due to unknown
		conflicts, as much notification will be given as possible, as
		soon as the requirement is known. Enbridge Gas will
		endeavor to include a notification protocol in the
		Environmental Protection Plan (EPP).
		Fish Rescue Planning (in respect of contingency trenching
		works) was identified in Table 5.1 of Section 5.2 of the
		Environmental Report. As stated in the report: "Prior to
		dewatering the work zone, fish trapped in the construction
		area will be collected and moved using capture, handling.
		and release techniques to reduce harm and stress. Fish
		rescue plans will be developed on a site-specific basis and
		implemented by qualified professionals with the
		appropriate permitting in place (i.e., a License to Collect
		Fish for Scientific Purposes from the MNRF)
		Enbridge Gas is amenable to having First Nations' monitors
		on-site during any required fish rescue works being
		conducted in accordance with the EPP.
Table 4.1: Watercourse	Does not mention the American eel	Thank you for the information regarding the American Eel.
Crossing Details pg. 37		According to the NHIC database, American Eel is present in
	The AOO requests that the finalized report	the Bonnechere River, however, the observation was
	mentions the American eel. The Bonnechere	located 7 km south of the Project study area and as such, it
	River and its tributaries are within the	was not included in the baseline conditions.
	historical habitat range of American eel	
	(Anguilla rostrata; 'primizi' in the Algonquin	This current plan for constructing the crossing of the
	language). American eels are a culturally	Bonnechere River is to affix the pipeline to the bridge.
	significant species, and the Algonquin people	Therefore, there would be no interaction between the
	have held a strong relationship with the eel	Project construction and the Bonnechere River and no

		the indicated species, Environmental Inspectors will be on- site to ensure that mitigation activities are implemented by appropriately qualified personnel.
Section 7.2.6 Unexpected Finds: Archaeological or Heritage Resources on pg. 107	The AOO requests that Stantec include the following statement in the finalized report in italics: Since the potential always exists to miss important information in archaeological surveys, if any artifacts of Indigenous interest or human remains are encountered during the development of this project, please contact: Algonquins of Ontario Consultation Office 31 Riverside Drive, Suite 101 Pembroke, Ontario K8A 8R6 Tel: 613-735-6307 E-mail: algonquins@tanakiwin.com	This request is acknowledged, and communication details will be included in the forthcoming Environmental Protection Plan (EPP).

#### Line-item attachment 3.99

From: Valerie Taggart <projectco3@pikwakanagan.ca>
Sent: Thursday, October 5, 2023 10:15 AM
To: Melanie Green <Melanie.Green@enbridge.com>
Cc: Amanda Two-Axe Kohoko <consultation@pikwakanagan.ca>; gpritchard
<pritchard@4directionsconservation.com>; Lauryn Graham <lauryn.graham@enbridge.com>
Subject: [External] Environmental Report review

#### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe. Kwey Mel,

I am writing today to connect with you regarding AOPFN's review of the Environmental Report. I know that we are late in providing you with our review however we have been diligently working on getting our comments back to your team. We are wondering if it wouldn't be too much trouble to request more time to provide our comments to your team for review. I realize that we are behind already and appreciate your understanding and consideration of our request.

Our first advisory committee meeting (Tuesday October 3<sup>rd</sup>) regarding the Eganville Expansion Project went very well and we are excited to forward to your team the questions AOPFN members asked and the comments they made regarding the project background and the Environmental report. There were two items that we would appreciate your input on prior to sending back our review of the Environmental report if possible. Your response to these two items may help better determine AOPFN's approach and recommendations for next steps.

The first is a question regarding Enbridge's preferred route for this project. How was the preferred route for the Eganville Expansion Project chosen and were any First Nations consulted during the route selection process? The second is a comment which is that AOPFN feels that First Nation Consultation on this project so far has been inadequate. AOPFN is very experienced in providing input to proposed developments early on and would have been happy to provide input to the route selection process if given the opportunity. These things being said, AOPFN is looking forward to further work with your team and to many future meaningful discussions.

Miigwech, Val.

### Valerie Taggart

Consultation and Engagement Department Algonquins of Pikwakanagan First Nation Tel: 613-625-4010 Email: <u>projectco3@pikwakanagan.ca</u> Mailing Address: 1657A Mishomis Inamo, Pikwakanagan, ON K0J 1X0 Physical Address: 4-473 Kokomis Inamo, Pikwakanagan, ON K0J 1X0

Line-item attachment 3.100

From:	Melanie Green
To:	Valerie Taggart
Cc:	Amanda Two-Axe Kohoko; gpritchard; Lauryn Graham
Subject:	RE: Environmental Report review
Date:	Friday, October 6, 2023 10:22:01 AM

Good morning, Val,

Thanks so much for your email – and for sure, take the time you need to be able to provide those comments. As always, engagement and consultation is ongoing. We look forward to those comments and working with AOP. We too recognize the work load

I'm so happy to hear the first advisory committee meeting went well. We are looking forward to those thoughts put forward. Please know that I am working with those here at Enbridge to lay out the route and provide a better understanding on the why's and the what's of the selections. I suggest we also sent up a call with the project team/manager to chat through the route selection. Thoughts on that? We are very interested to know AOP's thoughts and suggestions as we know AOP would have some GREAT insight on the area.

Chat soon and as soon as I have info from the team, I will get it over to you.

Have a great weekend!

Mel

### Line-item attachment 7.24

Enbridge Gas Inc. Eganville Community Expansion Project – Enbridge Gas Inc.'s Responses to Curve Lake First Nation

Table 1: Enbridge	Gas Inc. (Enbridge Gas) Responses to Curve Lake First Nation	Comments on the Eganville Community Expansion project
Item	Curve Lake Comments	Enbridge responses
1.1 Duty to Consult and Accommodate; 1.1.1	Quotation: "The environmental study was completed in accordance with the OEB Environmental Guidelines (2016), as well as relevant federal and provincial environmental guidelines and regulations. The principal objective of the environmental study was to outline various environmental mitigation and protection measures for the construction and operation of the Project while meeting the intent of the OEB Environmental Guidelines (2016). To meet this objective, the environmental study was prepared to: [] Develop a consultation program to receive input from interested and potentially affected parties." (Pg. 1, section 1 2.1)	
	Statement: This exact wording was used in a previous environmental report, Hidden Valley Community Expansion Project: Environmental Report (HVCEP:ER) prepared by Stantec for Enbridge. In a review of the ER (see Appendix 1, section 1.1.2) 4 Directions explained the difference between Rights Holders and interest holders, stakeholders, and the public. 4 Directions also asked Enbridge to clarify how Treaty obligations were considered relevant to the Hidden Valley Project, which Enbridge di in the Hidden Valley Community Expansion Project – Enbridge Responses to Curve Lake First Nation.	
	Question: Given that Enbridge was previously told how to address this issue and produced an explanation of how Treaty rights were considered for the Hidden Valley project, why was this information not included in this project?	Thank you for this comment. Enbridge Gas recognizes the existence of Michi Saagiig treaties and the rights contained therein. Enbridge Gas endeavors to work with all Nations to ensure their treaty rights are considered and as such will continue to do so throughout the like of the Project and

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Recommendation: Enbridge should include consideration of Inherent and Treat Rights and Treaty Obligations along with relevant federal and provincial guidelines in similar statements in the future.       thereafter. As such, Enbridge Gas remains committed to consultation process and would ask CLFN to provide us w any further information regarding potential Project-relat impacts on rights and how those impacts can be avoided mitigated as appropriate.         1.1.2       Quotation: "This Project is within the Algonquin territory and slightly in Treaty 27 and 27 1/4, or the Rideau Purchase (Ontario Treaties 2022). There are no Indigenous communities located in the Study Area. The Algonquins of Pikwakanagàn is located approximately 12 km from the Project Study Area."         Statement: Similar wording was used in a previous environmental report (HVEP: FB) prepared by Stantec for			
1.1.2       Quotation: "This Project is within the Algonquin territory and slightly in Treaty 27 and 27 1/4, or the Rideau Purchase (Ontario Treaties 2022). There are no Indigenous communities located in the Study Area. The Algonquins of Pikwàkanagàn is located approximately 12 km from the Project Study Area."         Statement: Similar wording was used in a previous environmental report (HVEP:ER) prepared by Stantec for		Recommendation: Enbridge should include consideration of Inherent and Treat Rights and Treaty Obligations along with relevant federal and provincial guidelines in similar statements in the future.	thereafter. As such, Enbridge Gas remains committed to the consultation process and would ask CLFN to provide us with any further information regarding potential Project-related impacts on rights and how those impacts can be avoided or mitigated as appropriate. Enbridge Gas will continue to work with its environmental consultants to incorporate input from potentially affected Indigenous groups, as appropriate.
Enbridge. In the review (Appendix 1, section 1.1.1), 4 Directions communicated that the project is in Michi Saagiig territory. By stating that there are no Indigenous communities located in the study area, Enbridge is undermining Treaty Rights. Enbridge responded: "The word "community" was intended to indicate a settled area, or group of people living in the same place. Recognizing 4 Directions staff's concern, Enbridge Gas would like to clarify that the statement was only intended to communicate that there are no known First Nation settled areas or reserves in the Study Area, based on a map of First Nations Communities from the Ministry of Indigenous Affairs.1 It was not intended to anyway diminish the importance of established Treaty rights." (Hidden Valley Community Expansion Project – Enbridge Responses to Curve take First	1.1.2	Quotation: "This Project is within the Algonquin territory and slightly in Treaty 27 and 27 1/4, or the Rideau Purchase (Ontario Treaties 2022). There are no Indigenous communities located in the Study Area. The Algonquins of Pikwäkanagàn is located approximately 12 km from the Project Study Area." Statement: Similar wording was used in a previous environmental report (HVEP:ER) prepared by Stantec for Enbridge. In the review (Appendix 1, section 1.1.1), 4 Directions communicated that the project is in Michi Saagiig territory. By stating that there are no Indigenous communities located in the study area, Enbridge is undermining Treaty Rights. Enbridge responded: "The word "community" was intended to indicate a settled area, or group of people living in the same place. Recognizing 4 Directions staff's concern, Enbridge Gas would like to clarify that the statement was only intended to communicate that there are no known First Nation settled areas or reserves in the Study Area, based on a map of First Nations Communities from the Ministry of Indigenous Affairs.1 It was not intended to anyway diminish the importance of established Treaty rights." (Hidden Valley Community Expansion Project – Enbridge Responses to Curve Lake First	

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	<ul> <li>in the HVCEP:ER and continued use of this language undermines Michi Saagiig Treaty Rights. Of note, the concept of a 'settled area' indicating Indigenous community use is also colonial. The Michi Saagiig travelled throughout their territory and did not settle in villages (Williams, 2018).</li> <li>Question: Given Enbridge's acknowledgment that this language was unclear, why was the same language used in this report?</li> <li>Recommendation: Enbridge should follow the previous 4 Directions recommendation and remove the statement regarding the absence of Indigenous Communities. Enbridge should also clarify that this project takes place in Michi Saagiig territory and Inherent and Treaty Rights must be upheld.</li> </ul>	Enbridge Gas would like to clarify that the statement was only intended to communicate that there are no known First Nation settled areas or reserves in the Study Area, based on a map of First Nations Communities from the Ministry of Indigenous Affairs. It was not intended to in anyway diminish the importance of established Treaty rights. Enbridge Gas recognizes the existence of Michi Saagiig treaties and the rights contained therein. As such, Enbridge Gas remains committed to the consultation process and would ask CLFN to provide us with any further information regarding potential Project-related impacts on rights and how those impacts can be avoided or mitigated as appropriate.
1.1.3	Quotation: "Consultation is an important component of the OEB Environmental Guidelines (2016). As noted by the OEB (2016), consultation is the process of identifying interested and potentially affected parties and informing them about the Project, soliciting information about their values and local environmental and socio-economic circumstances, and receiving input into key Project decisions before those decisions are finalized. Stantec believes that community involvement and consultation is a critical and fundamental component of this environmental study and that Indigenous community participation is essential to the Project. We also recognize that each potentially affected Indigenous community has unique conditions and needs and that the	

	process followed may not satisfy the "duty to consult"	
	component from an Indigenous community's perspective.	
	To demonstrate that we respect this view, we will use the	
	term "engagement" throughout the remainder of this	
	Report when we refer to seeking input from Indigenous	
	communities."	
	Statement: This exact wording was used in a previous	
	environmental report (HVEP:ER) prepared by Stantec for	
	Enbridge. In a review (Appendix 1, section 1.1.3) 4	
	Directions indicated the distinction between the legal	
	consultation process undertaken with a Rights Holder and	
	the engagement process undertaken with interested	
	parties, stakeholders, and the public. Enbridge	
	acknowledged this in their response to the review. 4	
	Directions recommended that Enbridge and Stantec be	
	purposeful and specific with their language when discussing	
	the engagement process.	
	Question: Given Enbridge's acknowledgment of the	Enbridge Gas understands this statement was intended to
	distinction between the legal consultation process and	both explain why the term engagement is used throughout
	engagement with interest holders, why was the same	the Report and to recognize an Indigenous community's
	language used in this document?	perspective with respect to the duty to consult.
	Recommendation: Having acknowledged the importance of	
	language in this situation, Enbridge should ensure that they	
	are purposeful and specific with their language when	
	discussing specific engagement processes with various	
	Rights and/or interest holders.	
1.2 Michi	Quotation: "Stantec respectfully acknowledges that the	
Saagiig Treaty	Williams Treaties First Nations hold constitutionally	
Rights; 1.2.1	protected harvesting rights in portions of the Study Area	
	within Treaty 20. The value of traditional knowledge and	
	oral history are acknowledged and welcomed and provide	

		-
	context and background to the findings of archaeological	
	studies. We recognize that Indigenous communities have	
	strong ties to their lands and that the use of these lands,	
	from a development, ecosystems, and sustainability	
	perspective, is of vital importance to the communities."	
	Statement: This exact statement was used in a previous	
	environmental report (HVEP:ER) prepared by Stantec for	
	Enbridge. In a review of that report (Appendix 1, section	
	1.2.1), 4 Directions noted that the entire study area is	
	protected by Michi Saagiig Treaty and Inherent Rights, and	
	asked in which portions of the study area do Williams	
	Treaties First Nations harvesting rights not cover? Enbridge	
	responded by recognizing that the statement could have	
	been better worded and explained that the portions of the	
	study area they were referring to were areas they believed	
	were not conducive to the exercise of harvesting rights,	
	such as active paved roadways.	
	Question: Civen the asknowledgment that the statement	Enbridge Cas asknowledges the Breiset is within the Mishi
	Question. Given the acknowledgment that the statement	Endinge Gas acknowledges the Project is within the Michi Seering treaty territory. Ephyldre Cae recognizes the event
	statement included in this separt?	saught reacy territory. Enbridge Gas recognizes the excerpt
	statement included in this report?	could have been worded better, the intention was to
	Recommendation: This statement should be rewarded to	recognize that certain politions of the study Area (e.g., active
	Recommendation. This statement should be reworded to	of Granville) may not be conducive to the everying of
	protected by Michi Soogiig Treaty and Inherent Pights	banyosting rights
100	Protected by Wich Saaging Treaty and Interent Rights.	narvesting rights.
1.2.2	the Treaty territory has highlighted the importance of water	
	the freaty territory has highlighted the importance of water	
	and aquatic resources. The Study Area is in close proximity	
	to waterbodies of high historical value to local indigenous	
	peoples, places where Rights-holders continue to this day to	
	exercise their Aboriginal or treaty rights. Enbridge values	
	indigenous conceptions of water stewardship and	
	management and will continue to engage with Rights-	

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	·	
	holders to distinctively understand potential impacts the	
	proposed project may have. [] There are a total of 47	
	watercourse crossings in the Study Area. The Study Area	
	does not occur within the jurisdiction of a conservation	
	authority."	
	Statement: As reaffirmed in section 35 of the constitution	
	act (1982), the Williams Treaties maintain that Michi Saagiig	
	harvesting rights are to be upheld. Any impact on culturally	
	significant species is an infringement on Michi Saagiig treaty	
	rights. Watercourse crossings, including Horizontal	
	Directional Drilling (HDD) crossings, pose a risk to these	
	systems and raise a concern about the potential impacts on	
	Michi Saagiig water rights as outlined in the Williams	
	Treaties and the Curve Lake First Nation Consultation and	
	Accommodation Standards (2013)	
	Question: What steps will be taken to ensure the ongoing	Enbridge Gas notes that several proposed mitigation
	protection of Indigenous Inherent and Treaty rights through	strategies and measures have been outlined in section 5.2 of
	the summary of potential direct and indirect environmental	the ER. If CLFN would like specific measures considered in
	effects, specifically as this pertains to water matters?	addition to what is indicated, in reference to specific
		mitigation objectives, then Enbridge Gas will review for
	Recommendation: 4 Directions recommends that Stantec	potential incorporation into the Environmental Protection
	and Enbridge confirm that Indigenous Treaty and Inherent	Plan (EPP).
	Rights and values are upheld when considering	
	environmental impacts and include Indigenous Rights	Enbridge Gas would be open to discussing mitigation
	Holders in the design of and approval of mitigation plans.	measures with CLFN and incorporating those
	0	recommendations in the mitigations plan, as appropriate.
		Enbridge Gas could also provide those mitigation measures
		related to environmental impacts to CLEN for review if
		interested.
1.3 Concerns	Quotation: "A background data review was conducted to	
Raised by	determine locations of potential biophysical features (e.g.	
Currie Lake	wetlands, watercourses) in the Study Area, Data were	

First Nation	gethered through agone, requests and by accessing the	
(or cubic dial	gathered through agency requests and by accessing the	
(CLFN); 1.3.1	tollowing online databases and sources:"	
	Statement: 4 Directions staff remind Stantec and Enbridge that Michi Saagiig Treaty Nights, including protection of culturally significant species and spaces, are protected throughout the project area. 4 Directions staff raise concerns regarding why Michi Saagiig Rights, and Knowledge Systems, are not included in the background data review. This point has been made to Enbridge in prior reviews (see Appendix 1, section 1.4.2).	
	Question: Given concerns raised by CLFN on multiple occasions regarding the potential presence of burial or archaeological sites, impacts on drinking water, fish, game, endangered species, cultural values, lands, etc., why were Michi Saagiig resources not reviewed as data sources for the study area?	Enbridge Gas notes that all concerns raised by Indigenous communities are intended to be identified and addressed as part of consultation activities integral to the Environmental Assessment process, and subsequently the development of the ER. As each project is assessed separately, Enbridge Gas issues specific, formal Notices of Commencement, as well as Notification Letters to Indigenous communities requesting input rearring the proposed project. Information provided the
	resources within all environmental reviews pertaining to this project, and future projects in Michi Saagiig territory, rather than trying to incorporate this knowledge after the study is complete.	Enbridge Gas would then be incorporated into route evaluation and development of mitigation measures, and subsequently summarized in the ER.
2.1 Concerns	Quotation: "The Ontario Wetland Evaluation System (OWES)	
Regarding	is used to identify PSW's. An evaluated wetland may be one	
Water; 2.1.1	contiguous unit or may be a series of smaller wetlands	
-	functioning as a whole. Evaluated wetlands that do not	
	qualify as provincially significant and may be protected	
	through local planning and policy measures. There may also	
	be unevaluated wetlands in an area. A review of LIO (MNRF	
	2022b) natural heritage mapping indicated that one PSW	
	(Mink Creek Wetland Complex), two evaluated wetlands	

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infringe Williams Treaty First Nations Inherent Rights to the landscape. Furthermore, under the 2008 Water Declaration: "First Nations in Ontario have our own territories that includes the waters, which include the rain waters, waterfalls, rivers, streams, creeks, lakes, mountain springs, swamp springs, bedrock water veins, snow, oceans, icebergs, and the seas". The Michi Saagiig have rights and responsibilities to these wetlands on their territory and should therefore set the protections and regulations for working within these wetlands.	
Question: How will the Williams Treaty be upheld during this project? While the ER details the mitigation measures in place to prevent harm to wetland systems, what restoration and/or compensation measures are in place if an unanticipated impact to wetlands occurs?	Restoration measures are intended to be compliant with the relevant statutory requirements, should a reportable incident occur from the Project. It is not possible to identify restoration or compensatory measures when the nature and magnitude of impacts are not known.
Recommendation: Enbridge should respond directly to the necessity of 120 m buffers around wetlands and share their plan for restoration and remediation in the case of unanticipated impact on wetland ecosystems to ensure that Michi Saagiig Rights are upheld.	Wetlands within 500 m of the preferred route (Study Area) were delineated based on available information. Ecological Land Classification (ELC) surveys were completed during summer 2022 to identify wetlands that are not part of the existing provincial database. Mitigation measures to address potential impacts to wetlands from Project activities are outlined in Table 5.1 under Forest and Vegetation Cover and Wetlands (such as for example: distant staging areas, delineated habitat protection and soil erosion control measures). Watercourses and wetlands are planned to be crossed via HDD to reduce disturbances. Enbridge Gas can increase setbacks from wetlands where possible; however, some surface disturbances to vegetated wetlands may be required which will be reclaimed immediately after construction to achieve the goal of meeting pre-disturbance conditions. No open aquatic habitats will be impacted during construction. If CLFN is interested, Enbridge Gas can discuss

		what other mitigation objectives the community would like to see achieved, and then plan around those in order to reduce disturbances.
2.1.2	Quotation: "Watercourse crossings are proposed to be completed by HDD; however, there exists the potential to affect fish directly through impacts on water quality (erosion, sedimentation and accidental spills), disruption and harassment (vibration and noise), and loss of habitat. Indirect impacts include restrictions to habitat use and fish passage. Long-term impacts can include changes to habitat such as substrate, increased erosion potential, loss of in- stream cover and riparian shading."	
	Statement: The Michi Saagiig have Inherent Rights to the use and care of waters. Furthermore, under the 2008 Water Declaration: "First Nations in Ontario have our own territories that includes the waters, which include the rain waters, waterfalls, rivers, streams, creeks, lakes, mountain springs, swamp springs, bedrock water veins, snow, oceans, icebergs, and the seas". Watercourses are used for harvesting and are home to Cultural Keystone species (several of which occur in the area according to Table 4.1 of the ER). The ER identifies mitigation measures in place to prevent impacts on watercourses, and while there is mention of contingency plans in the case of watercourse sedimentation, there is no mention of restoration or compensation for any loss of rights that might occur as a result of unanticipated impacts to watercourses.	
	Question: What restoration and/or compensation measures are in place in the case of an unanticipated impact to a watercourse during construction?	Thank you for providing this information. As per the response to section 2.1.1. above, restoration measures are intended to be compliant with the relevant statutory requirements should a reportable incident occur from the Project, It is not possible

Recommendation: Enbridge should have a plan in place for	to identify restoration or compensatory measures when the
restoration and remediation in the case of unanticipated	nature and magnitude of impacts are not known.
impact to watercourse to ensure that Michi Saagiig Treaty	
Rights are upheld.	Enbridge Gas has a well-documented internal contingency
	plan for inadvertent releases from HDD activities. This
	, contingency plan has been developed specifically to mitigate
	impacts to the natural environment, including all aquatic and
	riparian species and their habitat, and has been reviewed and
	approved by Fisheries and Oceans Canada (DFO). The
	contingency plan includes but is not limited to the following:
	Planning and Pre-Construction Mitigation Measures
	<ul> <li>completing geotechnical work and obtaining engineered</li> </ul>
	drawings for watercourse crossings
	<ul> <li>obtaining permits from applicable authorities</li> </ul>
	- maximizing the depth of the drill path under the
	watercourse distances from the watercourse (minimum 15
	meters)
	Construction Mitigation Measures:
	- Set up sediment control measures prior to initiating HDD
	operations to contain potential releases of drilling fluid,
	sediment-laden water, and run-off along the proposed drill
	path. Sediment control measures include silt fencing,
	SiltSoxx, etc. Install sediment control measures at each
	location, including around all entry and exit pits, drilling
	fluid containment pits, surrounding spoil piles, between all
	HDD operations and watercourse (at least 15m from any
	watercourse)
	<ul> <li>Assigning personnel to monitor the drill path for</li> </ul>
	inadvertent releases (includes personnel walking the
	entirety of the drill path)
	- Continuously monitor fluid volumes, annular pressure and
	cutting returns to ensure potential drilling fluid losses are

		<ul> <li>detected and addressed immediately. Assign dedicated personnel to continuously monitor drilling pressure and fluid volumes</li> <li>Over-excavate the entry and exit pits to create drilling fluid sump pits and contain drilling fluid in entry/exit sump pits</li> <li>Have spill response material on-site and readily available to contain inadvertent releases of drilling fluid, including but not limited to sandbags, straw bales, filter cloth, t-posts, SiltSoxx/silt fence, corrugated culverts, polyethylene sheets, vacuum trucks, turbidity curtains, trash pumps with fish screens, etc.</li> <li>Should an inadvertent release of drilling fluid occur, actions may include: <ul> <li>Ceasing HDD activities immediately</li> <li>Establishing spill containment utilizing the materials listed above</li> <li>Reporting spill to authorities</li> <li>Contacting an environmental consultant to support cleaning up and removal of drilling fluid</li> <li>Collecting information to determine cause of release, and prior to restarting activities, implementing solutions to mitigate further inadvertent releases</li> </ul> </li> </ul>
212	Quatation: "If blacting is required for tranships well surger	Protection Plan (EPP), which is to be developed subsequently.
2.1.5	within 100 m of the preferred pipeline trench should be	
	provided the option to participate in a Well Monitoring	
	Program prior to construction to determine preconstruction	
	quality and quantity conditions. Where blasting is not	
	required wells within a minimum of 10 m of the trench or	
	as recommended by future hydrogeological studies, will	

	qualify for participation in the monitoring program. The water quality and quantity, and levels of participating resident water wells should be monitored in the want of the second s	
	complaint or concern is brought forward."	
	Statement: This exact statement was used in a previous environmental report (HVEP:ER) prepared by Stantec for Enbridge. In response to this statement (Appendix 1, section 2.1.1), 4 Directions reminded Enbridge that it is the right and responsibility of CLFN to protect and govern the waters in their territory, which includes the Study Area for this project, and as such they should be informed of changes in water quality and quantity. In response to this statement, Enbridge said: "Should the Project have any unexpected adverse impacts to the quality and quantity of water bodies in the area, Enbridge will notify CLFN, as appropriate." (Hidden Valley Community Expansion Project – Enbridge	
	Responses to Curve Lake First Nation) Question: Why was there no mention of notifying Rights holders in a situation of unexpected adverse impacts to water quality and quantity in this report when it was included in a previous, similar project?	Thank you for your comment. Should the Project have any unexpected adverse impacts to the quality and quantity of groundwater in the area, Enbridge Gas will notify CLFN, as appropriate.
	Recommendation: 4 Directions recommends that Enbridge incorporate a notification for all affected Rights holders in the case of unexpected impacts to water quality and quantity into this and future projects.	
2.2 Species	Quotation: "Twenty wildlife species of conservation concern	
Presence	have ranges that overlap the Study Area, including 4 species	
	of reptiles, 1 species of amphibian, 12 species of breeding	
	birds, and 3 species of invertebrates. Exact locations of	
	species occurrences are not available from databases or	
	atiases, and the potential for species to be present is limited	

by habitat suitability and availability. Therefore, the identified species recorded from these databases may not occur in the Study Area."

Statement: A similar statement was made in a previous environmental report (HVEP:ER) prepared by Stantec for Enbridge. In response to that statement (Appendix 1, section 2.2.1), 4 Directions indicated that the Western science approach of equating a low probability of occurrence to a low risk of harm is a way to justify environmental degradation and destruction. This report has indicated the presence of several Cultural Keystone species, including SAR species, that could be impacted by project activities.

Question: While the report has mitigation plans for some anticipated SAR species, what plans are in place for the encounter of an unanticipated SAR species encounter? What plans are in place for impacts on non-SAR Cultural Keystone Species?

 
 Recommendation: Given the presence of watercourses, wetlands, and Cultural Keystone species identified in the ER, a detailed indigenous knowledge study is required to protect the cultural identity of the landscape. As was recommended in a previous report, this should have been completed prior to any environmental field investigations.
 Mil

 Additional environmental studies may be required after the completion of the Indigenous knowledge study. Inadvertently, further offsetting or compensation may be required by CLFN to reverse the alteration or limitation of harvesting rights to the area by the proposed construction or site alteration.
 Sir

During the preliminary stages of the project a detailed species at risk background investigation is conducted. Data regarding specific species occurrences within the Project footprint is retrieved from provincial, federal, and volunteer based databases. Based off the findings of the species at risk preliminary screening, field surveys are conducted to further confirm the presence and or absence of special concern, threatened, or endangered species to occur within the Project footprint. This information is then passed forward to the Ministry of Environmental Conservation and Parks (MECP) to further screen the Project for species at risk potential and determine species specific mitigations measures for only threatened and endangered species as per the Endangered Species Act, 2007.

Since the Project is proposed to occur in the road allowance, the potential for species at risk occurrence is reduced due to the pre-disturbed conditions. The mitigation measures for threatened and endangered species when implemented will



		All sites affected by construction activities are intended to be restored to pre-disturbance conditions as closely as possible and are monitored at 3- and 15-month intervals following construction. Follow-up monitoring reports are filed with the OEB, for placement on the public record.
2.2.2.1	Statement: In Appendix D, Pg. 2 under "Rare Vegetation Communities" it is indicated that these communities will be confirmed during future ELC surveys.	
	Recommendation: 4 Directions would like to review the results of these future ELC surveys to ascertain if any communities, flora, or fauna are of Cultural significance.	To address CLFN's concern, Enbridge Gas requests that CLFN identify natural heritage items of Cultural Significance along the proposed pipeline route, based on their current knowledge / experience to date, so that Enbridge Gas can mitigate any potential impacts on items of Cultural significance. Enbridge Gas appreciates receiving input from Indigenous groups as this helps to better inform Project design and Project planning.
2.3 Proposed	Quotation: "Potential residual effects on wildlife and wildlife	
Mitigations;	habitat associated with the construction of the Project are	
2.3.2	accidental direct mortality, habitat removal, and sensory	
	disturbance. Mitigation and protective measures for wildlife	
	and wildlife habitat are outlined in Section 4.4.4. In the	
	event of project-related wildlife mortality, the MNRF should	
	be contacted. If mortality occurs between concurrent	
	projects for similar species, the ministry will be able to note	
	the occurrences and coordinate with Enbridge Gas to adjust	
	construction activities and/or mitigation. Potential	
	cumulative effects resulting from sensory disturbances (i.e.,	
	noise, air pollution, and dust) are discussed below. Provided	
	that the above measures are undertaken, and provided that	
	concurrent projects follow mitigation measures similar to	
	those outlined in this report, adverse cumulative residual	
	effects on wildlife and wildlife habitat should be of low	
	probability and will be mitigated as coordinated through the	

		-
	MECP. Therefore, adverse cumulative residual effects on wildlife and wildlife habitat are not anticipated to be significant."	
	Statement: 4 Directions staff want to ensure that Michi Saagiig rights are protected through these measures and that construction teams understand the significance of these measures in protecting each species.	
	Recommendation: Curve Lake First Nation and 4 Directions representatives should be on site when the mitigation measures are put in place (e.g., silt fencing).	Enbridge Gas is open to providing the opportunity for CLFN monitors to be present when mitigation measures are put in place, as per the design and engineering requirements outlined in the Environmental Protection Plan (EPP). Enbridge Gas will notify those representatives ahead of EPP mitigation measures being put in place.
2.3.3	Quotation: "Construction activities with the potential to remove migratory bird habitat, such as vegetation clearing, should be avoided during the breeding season, which is generally from April 1 – August 31 in Southern Ontario (Environment Canada). Should vegetation clearing activities be unavoidable during this window, a mitigation program should be developed, which includes measures to reduce and avoid impacts to migratory birds and their nests. This program should include preventative and mitigation measures but may also include avoidance of clearing during key sensitive periods and in key locations."	
	Statement: 4 Directions staff seek to further ensure that Michi Saagiig rights are protected, and culturally significant species are unaffected by construction activities.	
	Recommendation: 4 Directions recommend that Curve Lake First Nation and 4 Directions have the opportunity to review	

	any mitigation programs that might be developed and be given the opportunity to have representatives onsite when mitigation measures are put in place.	Enbridge Gas would appreciate and welcome 4 Directions & CLFN identifying what mitigation objectives they would like to see fulfilled (and where), including rationale, so that Enbridge Gas can incorporate this feedback, as appropriate, in the means and methods of construction that Enbridge Gas intends to deploy. This will ensure effective mitigation programs are created. As per the response in 2.3.2, Enbridge Gas is open to providing the opportunity for a CLFN representative to be onsite when mitigations measures are put in place.
2.4.2 Cumulative Effects; 2.4.2	Quotation: "The potential cumulative effects of the Project were assessed by considering development that has a high probability of proceeding just prior to or concurrent with construction of the Project. A 100 m boundary around the PR was used to assess the potential for additive and interactive effects of the Project and other developments on environmental and socio-economic features. The cumulative effects assessment determined that, provided the mitigation and protective measures outlined in this report are implemented and that concurrent projects implement similar mitigation and protective measures, potential cumulative effects are not anticipated to occur, of if they do occur are not anticipated to be significant.	6
	Statement: This exact statement was used in a previous report prepared by Stantec for Enbridge (HVCE:ER). In response to that statement, 4 Directions indicated (Appendix 1, section 2.4.1) that regardless of the rationale that cumulative effects are not anticipated to be significant, 4 Directions staff remind Stantec and Enbridge representatives that any effect on the environment is significant when considering Michi Saagiig Rights. Colonial attitudes indicate that cumulative effects are negligible if	


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## Line-item attachment 9.29

om: Melanie Green <melanie.green@enbridge.com></melanie.green@enbridge.com>	
nt: Friday, August 11, 2023 10:36 AM	
: 'Consultation' <consultation@scugogfirstnation.com></consultation@scugogfirstnation.com>	
:: Lauryn Graham <lauryn.graham@enbridge.com>; Don Richardson <drichardson@scugogfirstnation.com></drichardson@scugogfirstnation.com></lauryn.graham@enbridge.com>	
ibject: RE: Project Notification - Eganville Community Expansion Project	
AUTION: This email was sent outside of your organization. Do not click links or open attachments unless you recognize the sender and know the ontent is safe.	
ood afternoon, Sam,	
vas going through my records, and I want to confirm that I have provided you the below information. Can you plea e know if this is outstanding?	se let
nank you so much in advance,	
el	
om: Melanie Green	
nt: Monday, August 8, 2022 10:57 AM	
Consultation <consultation@scugogfirstnation.com></consultation@scugogfirstnation.com>	
:: Lauryn Graham <lauryn.graham@enbridge.com>; Don Richardson <don@ibabraiding.com>; Waverley Birch</don@ibabraiding.com></lauryn.graham@enbridge.com>	
vbirch@ibabraiding.com>	
bject: RE: Project Notification - eganville Community expansion Project	
ood morning,	
nank you for your email – I will work with our project team and get back to you. In the meantime, should you have	
lditional questions or concerns, please let me know.	
ank you,	
el	

Filed: 20



# Review of Enbridge Eganville Community Expansion Project Environmental Report

Prepared for:

Algonquins of Pikwàkanagàn First Nation

4 Directions Reference No:

23-127

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### **VERSION HISTORY**

Version	Changes/ Updates	Author	Date
Draft 1	Draft Review V. 1	4 Directions Staff	Friday, September 22 <sup>nd</sup> , 2023
Draft 2	General edits and updates based on questions, comments, and feedback received from the October 3 <sup>rd</sup> AAC meeting.	4 Directions Staff	Wednesday, October 18 <sup>th</sup> , 2023

### **DISTRIBUTION LIST**

Contact	No. of Copies	Date
Algonquins of Pikwàkanagàn First Nation, Consultation Department	1е-сору	Friday, September 22 <sup>nd</sup> , 2023
Algonquins of Pikwàkanagàn First Nation, Consultation Department	1е-сору	Wednesday, October 18th, 2023

#### DISCLAIMER: OWNERSHIP, CONTROL, ACCESS, AND POSSESSION

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October 2023

Attn: Algonquins of Pikwàkanagàn First Nation 1657 Mishomis Inamo Pikwàkanagàn ON KOJ 1X0 projectco3@Pikwàkanagàn.ca

RE: Enbridge Eganville Community Expansion Project Environmental Report Review

4 Directions File No: 23-127

Dear Algonquins of Pikwakanagan First Nation Consultation Department,

4 Directions of Conservation Consulting Services (4 Directions) is pleased to present our review and recommendations regarding documents prepared by Stantec Consulting Ltd. and Enbridge Gas Inc. These documents were presented to Algonquins of Pikwakanagan First Nation (AOPFN) from Enbridge Gas Inc. under their Duty to Consult and Accommodate. To gain further insights and contextual understanding, a desktop review of the project-affected area was conducted. Subsequently, 4 Directions evaluated the initial *Eganville Community Expansion Project: Environmental Report* and conducted a site visit. The review feedback is categorized into three primary sections:

- General Inquiries Raised within the Context of Reporting.
- Indigenous Worldviews and Cultural Representation.
- Technical Accuracy.

Although it should be noted that 4 Directions acknowledges that *Indigenous Worldviews and Cultural Representation* are inextricably linked with the other above-mentioned topics, the review has been organized under these separate section headings for clarity purposes.

After these sections, 4 Directions provide a discussion around outcomes and recommendations, including recommended future studies and mitigations. We look forward to continuing to serve you, and the community in its consultation, and lands resource protection matters.

Please do not hesitate to reach out with any questions or concerns you may have with the content enclosed in this report.

Miigwetch,

The 4 Directions of Conservation Consulting Services Team.

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# 1.0 Introduction

4 Directions of Conservation Consulting Services (4 Directions) has been retained by Algonquins of Pikwakanagan First Nation (AOPFN) to undertake a peer review of the Environmental Report (ER) pertaining to the Enbridge Eganville Community Expansion project. Stantec Consulting Ltd. (Stantec) prepared the *Eganville Community Expansion Project: Environmental Report* on behalf of Enbridge Gas Inc. (Enbridge) as part of their regulatory consultation obligations and permitting process.

While reviewing the above-mentioned document(s), 4 Directions staff focused on elements with the most significant potential to impact Indigenous Rights and Titles. Specifically, this review was conducted with a focus on:

- The level to which AOPFN Aboriginal Rights, Title, interests, and values are fully recognized, respected, and protected through the project,
- The interactions of the Project with the environment,
- Evaluating the methodology and results of Stantec's (on behalf of Enbridge) assessment of the proposed project's potential impacts, and
- Proposed mitigation measures to address identified impacts.

As such, the objectives of this review include:

- 1. Provide a plain language explanation of the scope and nature of Project-related activities to AOPFN.
- 2. Identify technical issues and recommendations for the ER focused on the Aboriginal Rights and interests of AOPFN.

For clarity, 4 Directions staff have organized the questions, comments, and concerns that have come about from the review of the *Eganville Community Expansion Project: Environmental Report* into three main categories under section 5.0:

- General Inquiries Raised within the Context of Reporting,
- Indigenous Worldview & Cultural Representation, and
- Technical Accuracy.

Following this overview, we summarize this review's findings, recommendations, and future needs.

## 1.1 Project Description

Enbridge Gas proposes constructing the Eganville Community Expansion Project to supply the Eganville, Ontario, community with affordable natural gas. The Project will involve the construction of new natural gas pipelines to transport natural gas supply from the Snake River Line near Cobden, Ontario, to new distribution system pipelines in Eganville (Figure 1). This project aims to service residential, commercial, and industrial customers in Eganville and the supply lateral, which is proposed to span the Townships of Admaston/Bromley, Bonnechere Valley, and North Algona Wilberforce.

Stantec staff, on behalf of Enbridge, note that "potential adverse residual environmental and socio-economic impacts of this Project are not anticipated to be significant" (Stantec, 2023, p. vii). Through a review of the Project, 4 Directions Staff have found several potential impacts to the environment and AOPFN Rights.



FIGURE 1: MAP DEPICTING THE PREFERRED AND ALTERNATIVE ROUTES FOR ENBRIDGE'S PROPOSED 21 KM PIPELINE EXPANSION IN EGANVILLE, ONTARIO.

## 1.2 Algonquins of Pikwàkanagàn First Nation History

Algonquins of Pikwàkanagàn is the only federally registered Algonquin Community in Ontario (AOPFN, 2018B). Located off Highway 60, AOPFN is situated on the shores of Golden Lake and the Bonnechere River (AOPFN, 2018B). Algonquins of Pikwàkanagàn First Nation, formerly known as Golden Lake Indian Reserve No. 39, was officially established in 1873 following a petition led by a group of Nishnaabe Algonquins in 1857 (AOPFN, 2021). This petition was not the first of its kind from AOPFN. AOPFN's first petition was filed with the honourable crown in 1771 due to the Royal Proclamation (1763), a piece of legislation which acknowledges the pre-existing rights and sovereignty of Indigenous peoples over their territory, not being honoured nor enforced (AOPFN, 2021). Between 1771 and 1983, Nishnaabe Algonquins filed thirty (30) petitions, letters, and speeches to the hon. Crown protesting the lack of enforcement that made European settlement illegal in AOPFN's vast territory (AOPFN, 2021).

In Celebrate Summer Solstice 2021 with Omàmiwininī Pimàdjwowin, Ron Bernard (2021) notes that,

The science of archaeology has proven that the shores of Kichisippi (Ottawa River) have been inhabited by humans for about 10,000 years. Those inhabitants were our Nishnaabe ancestors and their predecessors. They occupied the entire drainage basin of the Ottawa River, an area of 146,300 Sq km; 35% of which is in the province of Ontario, and 65% of which is in Quebec. (11:45 – 12:50).

In 1983, AOPFN commenced a land claim regarding the ownership, use and management of land and natural resources in AOPFN territory (AOO, 2013). The Algonquins of Ontario land claim (Figure 2) covers 9 million acres across eastern Ontario, including the Kichisippi watersheds and Mattawa River (AOO, 2013).

## 1.3 AOPFN Principals and Values

AOPFN's *Principles Related to Proposed Development in AOPFN Territory* (2021) outlines sixteen (16) principles, which have been endorsed by AOPFN Chief and Council:

- 1. As a self-governing First Nation, AOPFN's right to free, prior and informed consent for projects will be respected.
- 2. AOPFN, as a government retrenching its rightful stewardship and governance responsibilities, will have a co-management role for development projects in AOPFN territory.
- 3. All projects will contribute positively to educational opportunities critical to AOPFN self-sufficiency, governance and relationships with other parties.

- 4. AOPFN must be meaningfully involved in any provincial or federal impact assessment for development occurring in AOPFN territory and any associated studies supporting assessment. Meaningful involvement requires adequate and full funding and reasonable timelines for participation activities.
- 5. Study Areas and Valued Components for any impact assessment must be identified in collaboration with AOPFN knowledge Keepers and based on the extent of potential impacts associated with the proposed project.
- 6. APOFN will have a meaningful role in monitoring the effects of projects in AOPFN territory.
- 7. Algonquin knowledge will have a meaningful role in monitoring the effects of projects in AOPFN territory.
- 8. Water must be clean, readily accessible, and trusted by AOPFN members.
- 9. AOPFN members' Algonquin aboriginal rights, title and connection/relationship to the lands and waters will be protected and promoted, and AOPFN will play a key role in this process.
- 10. Wildlife and wildlife habitat will be protected and promoted, and AOPFN will play a key role in this process.
- 11. AOPFN's cultural and spiritual values and resources will be vigilantly protected and promoted, and AOPFN will play a leading role in this process.
- 12. AOPFN will be accommodated for project-specific and cumulative impacts that do occur as a result of projects, on biophysical and human environmental values and AOPFN Algonquin rights, title, and interests.
- 13. AOPFN must be provided adequate and timely access to funding and resources for the exercise of its jurisdiction in relation to projects.
- 14. As AOPFN has the right to preferentially economically benefit from projects that occur on its territory, systemic barriers need to be proactively removed. AOPFN will not support projects that increase the risks to our environment and rights practices without sufficient countervailing socio-economic benefits (e.g., contracts, jobs, training, and capacity support.
- 15. Nothing is more important to AOPFN members than safe and plentiful Algonquin foods and resources as well as the protection of lands. Impacts on these will be monitored and communicated to AOPFN members in ways that have meaning to them.
- 16. Reconciliation between Indigenous peoples and Canada will underpin the Nation-to-Nation relationship; each proponent to present to AOPFN and work to refine a "Reconciliation Plan", showing how they will contribute to making life better and a healthy and mutually beneficial relationship with AOPFN.

## 1.4 AOPFN Aboriginal Rights and Interests

# As noted in AOPFN's Consultation, Engagement, and Accommodation Requirements for Proposed Developments in AOPFN Territory (2021),

As priority Algonquin aboriginal rights holders under the Constitution Act, 1982, and as the traditional stewards of the land, existing and future unaccommodated impacts on APOFN Algonquin aboriginal rights, title, and interests have always been and remain unacceptable. [...] AOPFN expects Proponents and government to stay informed of and respect AOPFN protocols and requirements and their evolution over time. (p. 2)

### 1.4.1 AOPFN Inherent Rights

Inherent rights are collective rights which flow from the continued use and occupation of certain areas by Indigenous Peoples. They are rights which First Nations have held and enjoyed for time immemorial. In general, they include rights to the lands and waters, rights to subsistence resources and activities, the right to selfdetermination and self-government, and the right to practice one's own culture and customs including language and religion. For AOPFN this includes,

rights to hunt, fish and trap, to harvest plants for food and medicine, to protect and honour burial sites and other sacred and culturally significant sites, to sustain and strengthen its spiritual and cultural connection to the land, to protect the Environment that supports our members survival, to govern ourselves, and to participate in all governance and operational decisions about how the land and resources will be managed, used, and protected. (AOPFN, 2023A).

Asserted and inherent rights are recognized in treaties signed with the Crown that are protected by Section 35 of the *Constitution Act*, 1982. Asserted and inherent rights are also recognized in the United Nations Declaration on the Rights of Indigenous Peoples ("UNDRIP") and affirmed under Article 3, Article 4, and Article 5 in *United Nations Declaration on the Rights of Indigenous Peoples Act*, 2021. On June 21st, 2021, the U*nited Nations Declaration on the Rights of Indigenous Peoples Act* received Royal Assent and came into force. This Act provides a roadmap for the Government of Canada and Indigenous peoples to work together to implement the Declaration based on lasting [re]conciliation, healing, and cooperative relations. Under the Act, the Government of Canada will work with Indigenous peoples to take all measures to ensure the laws of Canada are consistent with UNDRIP, including laws which intersect with Enbridge Eganville project.

### 1.4.2 AOPFN Treaty Negotiations

AOPFN commenced a land claim in 1983 regarding the ownership, use and management of land and natural resources in AOPFN territory (AOO, 2013). The Algonquins of Ontario land claim (Figure 2) covers 9 million acres across eastern Ontario, including the Kichisippi watersheds and Mattawa River (AOO, 2013).

The Algonquins of Ontario (AOO) and the Governments of Canada and Ontario are working together to resolve this land claim through a negotiated settlement. If successful, the agreement we reach will take the form of a modern-day treaty with aboriginal and treaty rights protected under Section 35 of the Constitution Act, 1982.

The Algonquin Treaty will provide certainty about the ownership, use and management of land and natural resources for the Algonquins and everyone else in the Settlement Area. This will remove the barriers to economic growth created by existing uncertainties and contribute to a more stable social, political and economic environment with greater potential for regional economic development, jobs and growth. (Algonquins of Ontario, 2013).



FIGURE 2: MAP OF ALGONQUINS OF ONTARIO SETTLEMENT AREA BOUNDARY.

## 2.0 Technical Review Methodology and Approach

The review of the ER for Enbridge's *Eganville Community Expansion Project* considers the entirety of the site and any potential effects, including offsite cumulative effects, aboriginal rights, titles and interests, and how it may impact or contribute to Ontario and Canada's policy targets on biological diversity. Through the methods described below, this review:

• Assesses the adequacy of the information provided in the *Eganville Community Expansion Project: Environmental Report.* 

- Assess the adequacy of the baseline information and data, environmental assessment methodology, alternative analysis, effects assessment, mitigation measures and monitoring plans, and
- Evaluate the consideration placed on local and Indigenous knowledge systems and the considerations of impacts to AOPFN Rights, land use and cultural heritage.

4 Directions staff reviewed the following document(s) on behalf of AOPFN:

Eganville Community Expansion Project: Environmental Report. Prepared by: Stantec Consulting Ltd.
 Prepared for Enbridge Gas Inc. March 21, 2023. 399 pages.

### 2.1 Desktop Review

Data for the desktop review of the *Eganville Community Expansion Project: Environmental Report* was collected through various relevant resources, including the Natural Heritage Information Centre (NHIC), Ontario Breeding Bird Atlas (2021), Ontario Reptile and Amphibian Atlas (2019), the Butterfly Atlas (2023), DFO Species at Risk Information, Aquatic Resources Area, and Canada's Key Biodiversity Area search engine.

Additionally, 4 Directions Staff reviewed several Rights, legislation, regulations, and policies relevant to the proposed Project. Section 3.0, below, highlights these applicable natural heritage planning considerations and provides a brief description of their relevance to the Project.

### 2.2 Site Visit

A site visit was conducted on Wednesday, September 6<sup>th</sup>, 2023, by two ecologists from 4 Directions, one consultation staff member and two community members from the Algonquins of Pikwakanagan First Nation (AOPFN), and a staff member from Enbridge at the Eganville Community Expansion project area (Figure 1), located in Eganville, ON. The site visit occurred from 09:39 – 14:33, covering 54 km<sup>2</sup>. The weather conditions during the site visit include an ambient temperature of 26°C, wind speed of 8km/h SE, the sky was clear, and there was no precipitation.

The purpose of this site visit was to conduct a general site walk through the Eganville Community Expansion project area to obtain relevant site information to include in the review of Stantec's environmental study

report (2023), which outlines various mitigation and protections measures for the construction and operation of the Enbridge project.

The field visit encompassed 8 stops, each focusing on the examination of the natural features found along Enbridge's proposed installation of 21km of natural gas pipeline, which included Enbridge's preferred route for the expansion and the identified alternative routes. Details of the site visit findings can be found in section 4.2 of this review.



FIGURE 3: MAP OF SITE VISIT TRACK FROM SEPTEMBER 6TH, 2023.

## 3.0 Applicable Natural Heritage Planning Considerations

For this desktop assessment, the following Rights, laws, policies, regulations, and guidelines have been reviewed regarding natural heritage constraints on the project site. This section (3.0) is also summarized in Table 1 in Appendix A.

## 3.1 Indigenous Rights

4 Directions staff recognize the importance of acknowledging, centering, and prioritizing Indigenous Inherent Rights, Aboriginal Rights, and Treaty Rights. Such Indigenous Rights are separate from rights afforded to non-Indigenous peoples living in Canada under Canadian common law and, as such, ought to be treated as such.

### 3.1.1 Chiefs of Ontario Water Declaration, 2008

The First Nations Water Policy Forum hosted by the Chiefs of Ontario office in Garden River First Nation (October 15-17, 2008).

The First Nations in Ontario met in Garden River First Nation to discuss First Nations perspectives on the waters including water quality, water quantity, safe drinking water and models for a path forward. Central to the discussions were ceremony and spirituality as First Nations reflected upon their own inherent responsibilities and intimate relationship to the waters.

The Chiefs in Assembly at the 2008 Special Chiefs Assembly in Toronto passed resolution 08/87 Water Declaration by consensus adopting the water declaration.

### 3.1.2 Assembly of First Nations Water Declaration, 2019

Water is a fundamental human right for First Nations, and this right is uniquely situated within a framework of Inherent Rights that are constitutionally protected under section 35 of the Canadian Constitution Act (1982) and supported by international mechanisms and instruments, including UNDRIP. First Nations in Canada also have Inherent and Treaty rights regarding the protection of water within their lands and territories. Relinquishing water rights was never part of Treaty negotiations, and First Nations water rights must be acknowledged and affirmed in any discussions pertaining to the management and protection of water.

The Assembly of First Nations (AFN) at the 2019 Annual General Assembly in Fredericton, New Brunswick, carried Resolution no. 01/2019, titled *First Nations Treaty and Inherent Rights to Water*, by consensus.

### 3.1.3 Section 35 of the Constitution Act, 1982

Section 35 of the Constitution Act, 1982, recognized and affirms Aboriginal and Treaty Rights. Specifically, it states,

The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed (S. 35(1)).

### 3.1.4 Williams Treaties First Nations

The proposed Project is within the Williams Treaties Settlement Agreement (Figure 4), made up of the Gunshot Treaty, Crawford Purchase, Treaty No. 27 & 27 1/4 (The Rideau Purchase), and Treaty No. 20 (The Rice Lake Purchase). The Williams Treaties First Nations include Alderville First Nation, Beausoleil First Nation, Chippewas of Georgina Island, Chippewas of Rama, Curve Lake First Nation, Hiawatha First Nation, and Mississaugas of Scugog Island. The larger Williams Treaties Settlement Agreement of 2018 affirms the constitutionally protected treaty rights to hunt, trap, fish, and gather for food. Therefore, all development projects occurring within these territories potentially harming these Rights or Rights Assertions must be approved under the 2018 Williams Treaty Settlement. The First Nations of the 2018 Williams Treaty Settlement must be consulted with and provide consent if the development project meets the requirements outlined within the Treaty. Failure to do so will be a direct violation of (1) the rights of both Inherent and Treaty of the signatories of the Treaty and (2) Section 35 of the Canadian Constitution.

### 3.1.4.1 Alderville First Nation Community Profile and Protocol(s)

Alderville First Nation is in south-central Ontario, on the south side of Rice Lake, and approximately 30 km north of Cobourg. The land base of the community is about 1200 hectares. The First Nation has a total membership of 1,222, with approximately 300 members living on reserve.

• Alderville First Nation <u>Consultation Protocol</u>.

### 3.1.4.2 Curve Lake First Nation Community Profile and Protocol(s)

Curve Lake First Nation is located mainland peninsula separating Buckhorn and Chemong Lakes, approximately 48 km northeast of Peterborough, Ontario. The territory also consists of a large island (Fox Island) on Buckhorn Lake and co-own smaller islands located throughout the Trent Severn Waterway system. The total land base of the First Nation is approximately 900 hectares. Curve Lake First Nation also owns property connected to the

reserve in the Selwyn Township. Curve Lake's registered membership is 2,482, of which 1,682 members live offreserve and approximately 800 members live on-reserve.

• Curve Lake First Nation Consultation and Accommodation Standards.

### 3.1.4.3 Hiawatha First Nation Community Profile and Protocol(s)

Hiawatha First Nation is located approximately 30 km South of Peterborough in Otonabee Township on the north shore of Rice Lake, east of the Otonabee River. The community consists of a land base of approximately 2470 acres and is made of up of three tenure areas – primary reserve land, Serpent Mounds Park, and Islands in the Trent. Hiawatha's membership totals 736 with approximately 220 residing on reserve.

• Hiawatha First Nation Consultation and Accommodation Standards.

### 3.1.4.4 Mississaugas of Scugog Island First Nation Community Profile and Protocol(s)

Mississaugas of Scugog Island First Nation (MSIFN) is located in the Durham Region on Lake Scugog, approximately ten (10) kilometres from Port Perry. On Scugog Island, the MSIFN reserve covers approximately 800 acres or 2.58 km<sup>2</sup>. As of 2018, Scugog First Nation's membership totals 237, with approximately 150 residing on reserve. MSIFN's Consultation Department webpage has identified renewable energy (e.g., Solar, Wind, BioGas), resource development (e.g., Aggregates: pits and quarries) and municipal (e.g., water and wastewater plants) projects, and certain private enterprises that have Provincial sanction as being of main concern to MSIFN.

### 3.1.4.5 Beausoleil First Nation Community Profile and Protocol(s)

Beausoleil First Nation is located on Christian Island within Georgian Bay, which is about a 30-minute drive northwest from the town of Midland and a 1.5-hour drive north from Toronto. The community is accessible by a 20-minute ferry boat ride, scoot, hovercraft, and a seasonal ice road. The community consists of approximately 5540 hectares of land and has a registered population of 2,783 members, with approximately 680 members residing on-reserve.



FIGURE 4: A MAP OF THE WILLIAMS TREATIES CLAIM AREA IN ONTARIO.

#### 3.1.4.6 Chippewas of Georgina Island First Nation Community Profile and Protocol(s)

Georgina Island First Nation is located along the south shore of Lake Simcoe at the north end of the Region of York geographical area - approximately 40 km east of Barrie and 80 km north of Toronto. The First Nation territory consists of five separate land masses located near the southern shore of Lake Simcoe. This includes three islands; Georgina Island, Snake Island, and Fox Island, as well as two small acreages located at Virginia Beach (ferry access point) and Island Grove on the mainland near Keswick. Georgina and Snake Islands are accessible by only ferry, scoot, and a seasonal ice road. Georgina Island First Nation land occupies an area of 1,444 acres. The community has a total membership of 923 members, of which about 210 reside on reserve.

### 3.1.4.7 Chippewas of Rama First Nation Community Profile and Protocol(s)

Rama First Nation is located on the eastern side of Lake Couchiching, just north-east of the City of Orillia, and approximately 1.5 hours north of Toronto, Ontario. The First Nation territory is approximately 2640 acres and

consists of multiple parcels of land which are not geographically connected, as well as multiple islands. Chippewas of Rama First Nation also owns lands in the township of Ramara which are not considered part of the First Nation. The majority of residences, band-owned buildings, and commercial operations are located in the most southern land parcel, known commonly as the Village of Rama. As of February 2020, the total membership of Rama First Nation was 1984, with 730 members residing on reserve.

• <u>Consultation and Accommodation Protocol</u> for Rama First Nation.

### 3.1.5 Algonquins of Pikwakanagan First Nation Aboriginal Rights

Enbridge's proposed project also falls within the Algonquins of Pikwakanagan First Nation territory. AOPFN are priority Rights holders under the *Constitution Act* (1982) and a recognized band under the *Indian Act* (1985). As such, Enbridge must respect AOPFN's right to Free, Prior and Informed Consent and adhere to AOPFN's *Principles for Proposed Development in AOPFN Territory* and AOPFN's *Consultation and Engagement Protocol* when conducting works with the potential to impact AOPFN Rights, interests, or values.

# 3.1.5.1 Consultation, Engagement, and Accommodation Requirements for Proposed Developments in AOPFN Territory

The AOPFN *Consultation, Engagement, and Accommodation Requirements for Proposed Development in AOPFN Territory* outlines fourteen (14) requirements that Proponents within AOPFN territory must adhere to, including but not limited to adhering to:

- AOPFN's Principles for Proposed Developments in AOPFN Territory, and
- AOPFN's Consultation and Engagement Protocol.

As well as commitment(s) to:

- Cover all reasonable costs of AOPFN engagement,
- Conduct the EIA according to the highest current standard of law and practice,
- Provide early opportunities for AOPFN to participate in assessments in a meaningful way,
- Provide a right of first refusal and financial support for AOPFN to identify, lead, and/or collaborate on studies (e.g., Algonquin Knowledge and Land Use Studies, Culture and Rights Studies, and/or Participation in early biophysical fieldwork, site assessments, and/or inventories),

- Provide meaningful opportunities for AOPFN (including, for example, AOPFN's Neya Wabun (Guardian)
  Program) to identify, develop, and implement mitigations or offsets for project impacts specific to
  AOPFN members, and
- Co-develop a collaboration framework.

### As noted in the Schedule B: Algonquins of Pikwàkanagàn First Nation Work Plan Sheet,

Projects developed on or within unsurrendered Algonquin Traditional Territory with potential impacts will enter into a participation agreement pursuant to which the Algonquins of Pikwàkanagàn First Nation continues to assert and exercise aboriginal title and aboriginal rights to and on its Reserve, and to those parts of its Traditional Territory to which it has not been a party to a treaty, including lands under water. (AOPFN, 2018A).

Such participation agreements comprise four (4) main steps:

- 1. Pre-Engagement,
- 2. Technical Assessment,
- 3. Engagement and Accommodation, and
- 4. Implementation.

## 3.2 Western Natural Heritage Legislation and Policy

The following legislation, policies, regulations, and guidelines have been reviewed for this desktop assessment, and potential natural heritage constraints on the project site are discussed below.

### 3.2.1 Species at Risk Act, 2002

The federal Species at Risk Act (SARA), adopted in 2002, prevents endangered or threatened species from becoming extinct or extirpated, helps with the recovery of endangered, threatened, and extirpated species, and manages species of special concern to help prevent them from becoming endangered or threatened. Habitat which is considered necessary for the survival/recovery of a listed wildlife species (i.e. Critical Habitat), is protected under section 56 of SARA. The SARA applies to all federal lands in Canada; however, at-risk aquatic species and migratory bird species identified on private property in Ontario also receive protection under the Act.

### 3.2.2 Fisheries Act, 1985

As a result of amendments to the Fisheries Act in 2015 and 2019, a proponent-led self-assessment is required for any project near water that could potentially impact fish or fish habitat. The purpose of the self-assessment is to determine whether harmful alteration, disruption, or destruction (HADD) of fish habitat, as defined by the Fisheries Act, can be avoided. The Fisheries and Oceans Canada (DFO) Fisheries Protection Program provides a Decision Framework and guidance material for conducting these self-assessments. If it is found that HADD may be unavoidable, the project should be submitted to DFO for review and determination of the project approach and conditions of approval.

### 3.2.3 Migratory Birds and Convention Act, 1994

This federal legislation prohibits killing, capturing, injuring, taking, or disturbing listed migratory birds (including eggs), or the damaging, destroying, removing, or disturbing of nests of said listed species. Applying this requires best management practices to detect and avoid disturbances to active nests during development activities.

### 3.2.4 Endangered Species Act, 2007

Species listed as endangered or threatened on the Species at Risk in Ontario (SARO) list are protected under the provincial Endangered Species Act, 2007 (ESA) (Government of Ontario, 2018). Section 9(1) of the ESA prohibits a person from killing, harming, harassing, capturing, or taking a member of a species listed as endangered, threatened, or extirpated. Section 10(1) of the ESA prohibits the damage or destruction of habitat of species listed as endangered or threatened. Protection of special concern species is provided through the designation of their habitat as significant wildlife habitat, a provincially protected heritage feature.

### 3.2.5 Provincial Policy Statement

Policy 2.0 of the Provincial Policy Statement (PPS) supplies direction to regional and local municipalities on planning policies, specifically for protecting and managing natural heritage features and resources. The PPS defines eight natural heritage features, with planning policies provided for each. The Natural Heritage Reference Manual (MNR, 2010) is a technical document used to help assess the natural heritage features listed below in accordance with the PPS.

The eight natural heritage features, as described in Sections 2.1.4 and 2.1.5 of the PPS, are:

a) Significant wetlands;

- b) Significant coastal wetlands;
- c) Significant habitat of endangered and threatened species;
- d) Fish habitat;
- e) Significant woodlands;
- f) Significant valley lands;
- g) Significant Areas of Natural and Scientific Interest (ANSIs); and
- h) Significant wildlife habitat

Each of these features is afforded varying levels of protection, subject to guidelines and in some cases regulations. Of these features, significant wetlands and ANSIs are designated by the Ministry of Natural Resources and Forestry (MNRF). MNRF also supplies criteria for the determination of Significant Woodlands, which may also be identified by the municipality. Significant habitat of Endangered or Threatened species is addressed through the ESA. Fish habitat is governed by Fisheries and Oceans Canada (DFO). The identification and regulation of the remaining features is the responsibility of the municipality or other planning authority.

### 3.2.6 Conservation Authorities' Act

The Study Area does not fall within the jurisdiction of any Conservation Authorities.

# 3.2.7 Ontario Energy Board Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 2016

The OEB (2016) guidelines are designed to provide direction to Proponents in the preparation of a project's Environmental Report (ER). The term "environment" in the Guidelines is defined to include natural, social, economic, cultural and built components. These guidelines specifically address matters related to approaching topics like natural heritage values and information. The Guidelines are not statutory regulations nor are they a rule or a code issued under the OEB's authority. Nonetheless, the Guidelines represent current knowledge and practice concerning matters that should be considered when making an application for OEN approval of hydrocarbon facilities development in Ontario. The OEB expects an applicant to comply with the Guidelines before, during and after construction. Applicants are advised that the fact that construction will be located entirely on existing right-of-way (ROW) may not be sufficient rationale for compliance with these Guidelines, although such projects may be suitable for an exemption application under section 95 of the OEB Act.

## 4.0 Results of Technical Review

## 4.1 Desktop Assessment

Data acquired through the background information review are summarized in the following sections. Based on the information gathered, an assessment of significance has been completed to identify protected natural heritage features on and adjacent to the project site. The full species tables can be found in Appendix B and C.

### 4.1.1 Landscape Position and Topography

The project's footprint is within Ecoregion 5E, the Georgian Bay Ecoregion, within the larger Ontario Shield Ecozone. The project boundaries occur in urbanized environments, natural areas, and agricultural lands. Within this Ecoregion, bedrock formations include predominantly migmatitic gneisses and felsic igneous rocks and is covered with ground moraine of variable depth. The topography of the Study Area varies greatly from weakly broken to strongly broken, and several upland areas including the Algonquin Dome, the Haliburton Highlands, and the Madawaska Highlands. Within the larger Georgian Bay Ecoregion, substrates include Humo-ferric Podzols (59%), acidic bedrock (26%), Mesisols (6%), and Melanic Brunisols (4%).

Most of the ecoregion (67.6%) exists as woodland, comprised of mixed forest (32%), deciduous forest (22.2%), coniferous forest (12.1%), and sparse forest (11.3%). Water and lands classified as pasture comprise 11% and 3% of the region. The Georgian Bay Ecoregion occupies the southern section of the Precambrian Shield, located in south-central Ontario. It stretches from the southeastern shores of Lake Superior in the west to the central part of the Ottawa River valley and the eastern border with Quebec. Located within the Great Lakes Watershed, this ecoregion is generally well-drained.

### 4.1.2 Wetlands

Within the project area, 4 Directions biologists identified the following evaluated wetlands and cold/cool water features to overlap with Enbridge's preferred route for the pipeline expansion project in Eganville:

- Bonnechere River,
- Cold Water Creek Wetland,
- Mink Creek,
- Mink Lake,
- Snake River, and
- Snake River Wetland (Provincially Significant).

There are also several unevaluated wetlands occurrences throughout the Study Area. 4 Directions staff would like to note that conservation approaches to evaluating, categorizing, and prioritizing certain wetlands over others stem from Western constructs and colonial values. The existence of wetlands within a Study Area, evaluated or not, should be closely considered from a Rights-based lens.

### 4.1.3 Wildlife Activity Areas

In total, fifteen (15) Wildlife Activity Areas were identified through 4 Directions of Conservation Consulting Service Staff's desktop review to occur within the preliminary preferred route (PPR) of the study area and/or the larger project area. Thirteen of these areas are identified as Colonial Waterbird Nesting Area(s), and two (2) are White-tailed Deer Wintering Area (Stratum 2). These White-tailed Deer Wintering Areas are considered overwintering habitat(s) and are presently suitable.

### 4.1.4 Key Biodiversity Areas

No Key Biodiversity Areas (KBAs) were unveiled during a search of Canada's Key Biodiversity Areas <u>Site Search</u> <u>Program</u>.

# 4.1.5 Wildlife Records

4.1.5.1 Birds

4 Directions staff biologists identified a total of 191 bird species to occur within the Study Area (Table 3, Appendix B), including the following species of conservation concern:

- Bald Eagle (Haliaeetus leucocephalus)
- Bank Swallow (*Riparia riparia*)
- Barn Swallow (*Hirundo rustica*)
- Black Tern (*Chlidonias niger*)
- Bobolink (*Dolichonyx oryzivorus*)
- Canada Warbler (*Cardellina canadensis*)
- Chimney Swift (Chaetura pelagica)
- Eastern Meadowlark (*Sturnella magna*)
- Eastern Wood-Pewee (*Contopus virens*)
- Eastern Whip-poor-will (Antrostomus vociferus)

- Evening Grosbeak (*Coccothraustes vespertinus*)
- Grasshopper Sparrow (Ammodramus savannarum)
- Horned Grebe (*Podiceps auratus*)
- Least Bittern (*Ixobrychus exilis*)
- Loggerhead Shrike (Lanius Iudovicianus)
- Olive-sided Flycatcher (Contopus cooperi)
- Peregrine Falcon (*Falco peregrinus*)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*)
- Red-winged Blackbird (Agelaius phoeniceus)
- Rusty Blackbird (Euphagus carolinus)
- Wood Thrush (*Hylocichla mustelina*)

### 4.1.5.2 Reptiles and Amphibians

4 Directions staff biologists identified a total of 14 amphibian species and eight (8) reptile species to occur within the Study Area (Tables 2 & 5, Appendix B), including the following provincial species of conservation concern:

- Blandings Turtle (*Emydoidea blandingii*)
- Eastern Milksnake (Lampropeltis Triangulum)
- Midland Painted Turtle (*Chrysemys picta marginata*)
- Northern Map Turtle (Graptemys geographica)
- Snapping Turtle (Chelydra serpentina)

### 4.1.5.3 Mammals

Through available desktop resources, 4 Directions staff did not identify the potential for any mammals to be present in the Study Area. Due to the presence of Deer Wintering Areas (section 4.1.3), however, we can assume the presence of White-tailed Deer. Too, during the September 6<sup>th</sup>, 2023, site visit, 4 Directions staff record incidental sightings of an American Beaver *(Castor canadensis).* 

### 4.1.5.4 Invertebrates

4 Directions staff biologists identified a total of 61 insect species to occur within the Study Area (Table 4, Appendix B), including the following species of conservation concern:

• Monarch (Danaus plexippus)

### 4.1.5.5 Vascular Plants

4 Directions staff biologists identified a total of two (2) vascular plant species to occur within the Study Area (Table 6, Appendix B), including the following species of conservation concern:

- Black Ash (Fraxinus nigra)
- Butternut (Juglans cinerea)

### 4.1.5.6 Species at Risk

4 Directions staff biologists identified a total of twenty-six (26) Species at Risk with potential to occur within the Study Area (Appendix C). This includes 18 species of birds (Table 7), 1 insect species (Table 8), 5 reptile species (Table 9), and two vascular plant species (Table 10).

#### 4.1.5.7 Culturally Significant Species

In the *Eganville Community Expansion: Environmental Report*, Stantec did not identify any culturally significant species in the study area.

Members of AOPFN have affirmed that all animals are valued and deserve protections. That said, there are specific species which are considered culturally significant. Based upon AOPFN's review of these reports, this project has the potential to impact several culturally significant species and spaces. Guided by the First Nation Information Governance Centre's (FNIGC) principles of OCAP (ownership, control, access, and possession) related to First Nations' knowledge, information, and data, 4 Directions staff will not disclose the specific species, or locations, of these species within this review (FNIGC, 2023). With consent from and proper benefit to AOPFN, Enbridge staff must engage with AOPFN knowledge holders to better understand the potential impact of this project on culturally significant species. Through, for example, a four seasons approach to physical site assessments and inventories. A four seasons site survey conducted by Enbridge would support AOPFN in identifying which culturally significant species are present in the study area.

### 4.2 Site Visit

A site visit was conducted on Wednesday, September 6<sup>th</sup>, 2023, by two ecologists from 4 Directions, one consultation staff member and two community members from the Algonquins of Pikwàkanagàn First Nation (AOPFN), and a staff member from Enbridge at the Eganville Community Expansion project area. The field visit encompassed 8 stops, each focusing on the examination of the natural features found along Enbridge's proposed installation of 21km of natural gas pipeline, which included Enbridge's preferred route for the expansion and the identified alternative routes. The purpose of this site visit was to conduct a general site walk through the Eganville Community Expansion project area to obtain relevant site information to include in the review of Stantec's environmental study report (2023). Below, 4 Directions staff provide an overview of incidental wildlife observations which took place on site on September 6<sup>th</sup>, 2023. Following, 4 Directions staff provide an overview of concerns raised from the September 6<sup>th</sup>, 2023, site visit.

#### 4.2.1 Incidental Wildlife Observations on Site

Wildlife on-site includes two unique species of birds, one unique insect species, one unique mammalian species, and one unique vascular plant species (see Appendix D: Technical Memo). Bird species observed included

Eastern Meadowlark (*Sturnella magna*) and American Kestrel (*Falco sparverius*). The only insect species observed included adult Monarch (*Danaus plexippus*) butterflies and the presence of Common Milkweed (*Asclepias syriaca*), which is a vascular plant that is critical for the life history of the Monarch insect species. The single mammalian species was an American Beaver (*Castor canadensis*), which was recorded indirectly through the identification of the presence of dam habitat. Wildlife observations were recorded by biologists from 4 Directions and AOPFN representatives during the site visit on September 6th, 2023. It is important to note that due to the scope of this site visit, wildlife observations were incidental, and no species-specific inventories were conducted.

### 4.2.2 Concerns Raised from September 6<sup>th</sup>, 2023, Site Visit

Concerns raised from the September 6<sup>th</sup>, 2023, site visit were recorded by 4 Directions biologists in the *Technical Field Memorandum: Enbridge Eganville Community Expansion* document (Appendix D). Generally speaking, these concerns fall under seven main categories:

- Timber End-use and AOPFN Harvesting Areas,
- Vegetation Clearing and Breeding Birds,
- Potential Butternut Occurrence,
- Wetlands and Watercourses,
- Impacts to Reptiles and Amphibians,
- Deer Wintering Areas, and
- Selection of Pipeline Route.

These concerns are reflected in section 5.0, *Questions, Comments, and Concerns Raised During the Review Process,* and section 6.0, *Outcomes and Recommendations*.

## 5.0 Questions, Comments, and Concerns Raised During the Review Process

In conjunction with the collection and analysis of data highlighted in section 4.0 of this review, 4 Directions of Conservation Consulting Services Staff conducted a rigorous review of the *Eganville Community Expansion: Environmental Report*. This review was conducted from a Rights-based lens, under the guidance of relevant laws, policies, regulations, and guidelines, as communicated in section 3.0 of this review. Based on these activities, 4 Directions staff have compiled a list of questions, comments, and concerns raised during the review process. For clarity, these remarks are sorted across three main categories below.

### 5.1 General Inquiries Raised within the Context of Reporting

### 5.1.1 Presence of Wetlands and Woodlands

Under section 2.0 of the *Eganville Community Expansion: Environmental Report*, Stantec provides a comparative table highlighting the evaluation of the preliminary preferred route (PPR1) and the alternative route (AR0). In this table, (Stantec, 2023, Table 2.1), it is communicated that there are more adjacent locally significant and/or other unevaluated wetlands (km parallel) in the PPR1 (0.4) than there are in the AR0 (0.2). What's more, there are also more adjacent and intersecting woodlands (km parallel) in the PPR1 (1.8) than in the AR0 (0.2).

4 Directions staff raise concerns with the fact that the PPR1 presents more possible impact compared to AR0 in 2/3 categories where either route was recorded in Table 2.1 of the environmental report. The implications and potential concerns regarding these impacts are discussed further in section 5.2, *Indigenous Worldview & Cultural Representation*.

4 Directions staff raise concern that Tables 2.1 and 2.2 in the *Eganville Community Expansion: Environmental Report* notes that 0 (km) of Provincially Significant Wetlands (PSWs) occurred within the PPR1, AR0, PPR2, and AR3 route evaluations. Desktop review findings and the *Technical Field Memorandum: Enbridge Eganville Community Expansion* document (Appendix D) highlight that Enbridge's preferred route overlaps with the Snake River Wetland – a PSW.

Through preliminary conversations with representatives from AOPFN, it is evident to 4 Directions staff that the alternative route, and/or routes were not considered at all (e.g., Lake Doré) within the *Eganville Community Expansion: Environmental Report, and* could be more beneficial ecologically, and for AOPFN. As such, 4

Directions staff and representatives from AOPFN request that Enbridge and/or Stantec staff further explain their rationale for deciding on the preferred route.

# Further, why did Stantec staff, on behalf of Enbridge, see it unnecessary to consult with AOPFN when selecting the PPR?

Based on provided information within the *Enbridge Eganville Community Expansion: Environmental Report*, and further dialogue with AOPFN membership, 4 Directions of Conservation Consulting Services staff raise concerns that Stantec, on behalf of Enbridge, consulted with AOPFN as an afterthought. This approach to consultation with Rights holders is characterized as project notification, or a box-ticking exercise. Further and changed action(s) from Enbridge, representing the Crown, are required.

As such, further and improved consultation with AOPFN is required to clarify the selection of the preferred and alternate routes for this study area.

## 5.2 Indigenous Worldview & Cultural Representation

### 5.2.1 Rights Delineation

Under Section 1.2 of the *Eganville Community Expansion: Environmental Report,* Stantec highlights the environmental study process as taking place through three phases:

- Phase I: Identification and Consultation on the Alternative Routes
- Phase II: Gather information and Consultation on the Preliminary Preferred Route
- Phase III: Environmental Report

### Under phase II, specifically, Stantec staff write that,

Specific information requests were made to <u>several agencies and stakeholders</u> to assist with identifying environmental features, constraints, the potential for presence of Species at Risk (SAR) and their habitat, and eventually with developing mitigation and protective measures based on predicted effects and potential impacts. <u>Feedback was sought on the Preliminary Preferred Route (PPR) and alternative</u> <u>routes through newspaper notices, letters, and a Virtual Open House held from September 26 to</u> <u>October 9, 2022</u> (Stantec, 2023 p.3).

In response to this environmental study process, 4 Directions staff note that AOPFN is not an agency nor a stakeholder, but rather maintain Aboriginal Rights. These Rights are delineated from settler agencies,

stakeholders, etc., and must be considered from the onset of a project (in other words, prior to route evaluation).

To better understand the potential for this project to impact AOPFN Rights and values, Enbridge must engage with AOPFN in an appropriate manner as outlined in AOPFN's consultation protocol. This approach should be uptaken separately from engagement with settler agencies and/or stakeholders.

See Schedule B: Algonquins of Pikwàkanagàn First Nation Work Plan Sheet on AOPFN's Consultation and Engagement webpage.

### 5.2.2 Terminology

Under section 3 of the Eganville Community Expansion: Environmental Report, the authors note that,

<u>Consultation is an important component of the OEB Environmental Guidelines</u> (2016). As noted by the OEB (2016), consultation is the process of identifying interested and potentially affected parties and informing them about the Project, soliciting information about their values and local environmental and socio-economic circumstances, and receiving input into key Project decisions before those decisions are finalized.

Stantec believes that community involvement and consultation is a critical and fundamental component of this environmental study, and that Indigenous community participation is essential to the Project. We also recognize that each potentially affected Indigenous community has unique conditions and needs and that the process followed may not satisfy the "duty to consult" component from an Indigenous community's perspective. To demonstrate that we respect this view, we will use the term "engagement" throughout the remainder of this Report when we refer to seeking input from Indigenous communities. (p. 20)

There is much to unpack in the above quotation. To begin, recognizing that the *Consultation Program* may not satisfy the protocols, standards, and expectations of Rights Holders under the legal Duty to Consult and Accommodate must trigger change in Stantec and Enbridge's approach to consultation. Selecting a blanket term (like engagement) to avoid the term or responsibility of consultation is inappropriate. Nations must be consulted for this project.

On the note of consultation – it is further inappropriate to group consultation with Indigenous Rights holders with the public engagement of settler stakeholders. Further clarity regarding how Stantec and Enbridge's approach(es) to consulting with rights holders and engaging interest and stakeholders are distinct and separate would be beneficial.

Specifically, how did Enbridge and Stantec adhere to the Consultation, Engagement, and Accommodation Requirements for Proposed Developments in AOPFN Territory (Section 3.1.1 of this review) through their Consultation Program?

AOPFN was not consulted by Stantec or Enbridge during the first two phases of the *Eganville Community Expansion: Environmental Report* process (e.g., selecting the route). In order to be in line with and better understand AOPFN's rights, AOPFN requires that proponents engage with AOPFN from the onset. By not consulting with AOPFN until the Environmental Report was complete, Stantec staff are missing opportunities to meaningfully engage with AOPFN and discuss other opportunities in addition to the Duty to Consult. Again, this approach is more closely characterized as information sharing, or a box-ticking exercise, rather than meaningful consultation.

#### Additional questions include:

Why was AOPFN not consulted by Stantec, on behalf of Enbridge, until the Environmental Report was complete? Was AOPFN consulted to understand members' interest in an opportunity to benefit from this proposed project in their territory?

Did Enbridge or Stantec provide members of AOPFN with the opportunity to access and benefit from this infrastructure? How will Stantec, on behalf of Enbridge, ensure that AOPFN is benefitting from and consenting to this project in their territory?

The above questions provided by 4 Directions staff encourage Stantec and Enbridge to consider and reflect on how their current approach to consulting with AOPFN has been insufficient. Much of these questions would've been easier to answer at the beginning of the project, if consultation had taken place at an appropriate time. Stantec, on behalf of Enbridge, needs to show good faith to Rights holders in saying that they are working with all Indigenous communities by appropriately consulting AOPFN. Such approaches prioritize reciprocal benefits for Rights holders, understanding AOPFN's values and priorities, and how these can be supported.

Please see section 5.3.2, below, for technical concerns related to the quotation in this section.

### 5.2.3 Engagement with Indigenous Communities

Under section 3.2.1 (Identifying Indigenous Communities) of the *Eganville Community Expansion: Environmental Report*, it is noted that, "Engagement with Indigenous communities was guided by the OEB Environmental Guidelines (2016), [...], but also by the Enbridge's Indigenous Peoples Policy." (p. 21).

Enbridge Inc. Indigenous Peoples Policy (2022) was created with the intention to,

- Commit to consultation, engagement and the creation of positive, long-lasting mutually beneficial relationships (social, cultural, economic and environmental); [and]
- *Recognize the importance of UNDRIP and the role it plays in guiding our approach.* (Enbridge Gas Inc., 2018).

With these guiding intentions from Enbridge taken into consideration, 4 Directions staff would like to further understand the nature to which the *Eganville Community Expansion: Environmental Report*, and Stantec's approach to Indigenous engagement in general, promotes positive, long-lasting mutually beneficial relationships and recognizes the importance of UNDRIP and the role it plays in this work.

In line with Enbridge Inc. Indigenous Peoples Policy (2022) and AOPFN's Principals and Values (Section 1.2.1 of this review), 4 Directions staff ask how this project's approach to Indigenous engagement has led to longlasting and meaningful relationships with and/ or benefit to AOPFN (for example, contributions to the AOPFN Guardian program).

Further clarity is also needed to understand how this project reflects UNDRIP (2007) and the UNDRIP Act (S.C. 2021, c. 14). 4 Directions of Conservation Consulting Services staff are particularly interested to understand, from the perspective of Stantec and Enbridge staff, how this project's approach to Indigenous engagement,

- address[es] injustices, combat[s] prejudice and eliminate[s] all forms of violence, racism and discrimination, including systemic racism and discrimination, against Indigenous peoples and *Indigenous* elders, youth, children, women, men, persons with disabilities and gender-diverse persons and two-spirit persons, and
- ii. promote mutual respect and understanding as well as good relations, including through human rights education. (UNDRIP Act, 2021)

### 5.2.4 Potential Impacts to Aquatic Resources

Under section 4.4 (biophysical features) of the *Eganville Community Expansion: Environmental Report*, Stantec staff state,

Indigenous engagement with Rights-holders in the Treaty territory has highlighted the importance of water and aquatic resources. The Study Area is in close proximity to waterbodies of <u>high historical value</u> to local Indigenous peoples; places where Rights- holders continue to this day to exercise their Aboriginal or treaty rights. Enbridge values <u>Indigenous</u> <u>conceptions of water stewardship</u> and management and will continue to engage with Rights-holders to distinctively understand potential impacts the proposed project may have .(p. 34)

4 Directions staff caution authors with the use of the term historical when discussing Indigenous ways of knowing and being; using proper verbiage to ensure that you are not historicizing Indigenous relations to land is crucial. For example, in the above quotation, Stantec staff write "... waterbodies of high historical value to local Indigenous peoples". Such language, purposefully or not, characterizes Indigenous Rights to, and relationships with, water as being in the past. Instead, one could write that Indigenous Peoples maintain Rights to and relationships with these waterbodies; recognizing that these Rights and relationships have existed for over 10,000 years.

What's more, First Nations' Rights to water stewardship are not an "Indigenous conception" but rather a Right. This is evidenced by the (2008) Chiefs of Ontario (COO) *Water Declaration* (Resolution 08/87) and the (2019) Assembly of First Nations (AFN) *First Nations Treaty and Inherent Rights to Water* (Resolution 01/2019).

### 5.2.5 Potential Impacts to Waters including Wetlands

Also under section 4.4 (biophysical features) of the *Eganville Community Expansion: Environmental Report*, it is stated that,

The Study Area occurs within the Snake River Watershed (quaternary watershed) and the western end of AR2 and AR3 and all of Phases 3 and 4 occur within the Douglas Dam – Bonnechere River Watershed (quaternary watershed) to the south. The entire Project occurs with the Bonnechere River – Central Ottawa River Watershed (tertiary watershed), Central Ottawa River Watershed (secondary watershed), and Great Lakes – St. Lawrence River (primary watershed) (MNRF 2022b).

There are a total of 47 watercourse crossings in the Study Area. (p. 34).

Given the above discussion (Section 5.2.4 of this review) regarding Indigenous Water Rights, in unison with the discussion provided under section 5.1.1 and Meeting Minutes from the September 6<sup>th</sup>, 2023, Site visit with representatives from AOPFN and 4 Directions staff raise concerns regarding the potential impact for the project to have negative impacts to water, and AOPFN Rights. Based on the *Eganville Community Expansion: Environmental* Report, it is understood by 4 Directions staff and AOPFN representatives that the AR01 has lower environmental, and Rights impacts compared to PPR1. Given these delineated Rights, and the presence of 47 water crossings within the study area, it is curious that Stantec (on behalf of Enbridge) can say that there will be no significant impacts to the environment or AOPFN Rights; especially given that this conclusion came about without consulting AOPFN.

# Given that the selected route has more potential environmental impacts (including water) and AOPFN Rights, how and why did Enbridge specialists decide it was preferred?

### 5.2.6 Occurrence of and Impacts on Woodlands in Study Area

Under Section 4.4.2 (Forest and Vegetation Clearing) of the *Eganville Community Expansion: Environmental Report*, highlights that,

The majority of Phase 1 PPR and AR Study Area fall within the Pembroke Ecodistrict (6E-16). Approximately half (54%) of this ecodistrict has been converted to agricultural land (e.g., cropland, pasture, hayfield) with mixed forest (23%) and deciduous forest (16%). <u>Sugar maple</u> (Acer saccharum), American beech (Fagus grandifolia), eastern white pine (Pinus strobus), white spruce (Picea glauca), and balsam fir (Abies balsamea) are common mixed forest species. Deciduous forests are often dominated by <u>trembling aspen (Populus tremuloides)</u>, large-toothed aspen (Populus grandidentata), and paper birch (Betula papyrifera) with red maple (Acer rubrum), yellow birch (Betula alleghaniensis), balsam poplar (Populus balsamifera), white ash (Fraxinus americana) and red oak (Quercus rubra) as old agricultural land transitons back into forested habitat (Wester et al. 2018).

The remainder of the Study Area falls within the Brent Ecodistrict (5E-10). This ecodistrict is dominated by forest with mixed forest (46%), coniferous forest (28%), and deciduous forest (13%) occupying 87% of the land. Upland species in the ecodistrict include <u>sugar maple</u>, American beech, yellow birch, red maple, large-toothed aspen, eastern hemlock (Tsuga Canadensis), eastern white pine, eastern hop-hornbeam (Ostrya virginiana), black cherry (Prunus serotina), red oak, and red pine (Pinus resinosa). Lowland species include <u>eastern</u> white cedar (Thuja occidentalis), American larch (Larix laricina), black spruce (Picea mariana), black ash (Fraxinus nigra), balsam poplar and red maple. Coniferous forest generally includes <u>eastern white pine, red pine, white spruce, and balsam fir</u> (Wester et al. 2018).
Forests are considered a Cultural Resource in many Indigenous worldviews. Forests continue to play a critical part of the spiritual and cultural health of the AOPFN. Many forests are considered Indigenous Cultural Landscapes (ICL), or Living Indigenous Landscapes, which provide interconnected physical, cultural, emotional, and spiritual resources. Many Western approaches to constructing ecological baselines lack recognition of these cultural landscapes, and in doing so, marginalize Indigenous ways of knowing and being.

The responsibility for this exclusion of Indigenous worldviews cannot be solely placed on those writing the provided ER. We understand that they are attempting to understand and develop a method while working under and in a colonial governance system created by a process that allows for the insertion of Indigenous Knowledge Systems (IKS) or worldviews at the wrong place in the consultation process.

Still, as this concern has been raised, it is important that those receiving such feedback implement appropriate changes to their process and approach.

Indigenous Knowledge holders maintain extensive knowledge about the spatial and temporal distribution, compositions, health, conditions, and behaviour of many species, and the factors that influence them. This knowledge reveals much more about the natural variation over time than that of Western Science valued components. What's more, AOPFN's Principles Related to Proposed Developments in AOPFN Territory maintain that "study areas and valued components for any impact assessment must be identified in collaboration with AOPFN knowledge keepers and based on the extent of potential impacts associated with the proposed project".

# As such, 4 Directions staff ask how AOPFN Knowledge Holders have been involved in the assessment of woodlands in the Study Area.

4 Directions staff, with representatives of AOPFN, also ask Stantec to clarify what the exact distance for which trees in line with the proposed development will have to be removed, considering the distance from the pipeline and tree root system.

#### 5.2.7 Socio-Economic Environment

Section 4.5 of the of the *Eganville Community Expansion: Environmental Report* provides information regarding the socio-economic environment of the study area. Until section 4.5.7, titled *Indigenous Land Use and Traditional Knowledge*, of the ER, the section titled *Socio-economic Environment* does not acknowledge that the proposed site is located on Indigenous Cultural Landscapes, or Living Indigenous Landscapes (Whetung, 2016).

4 Directions suspect that there are aspects regarding air quality and noise, culture, tourism and recreational facilities, infrastructure, employment and business that have the potential to impact AOPFN Rights, interests, and values.

# How will AOPFN Rights, interests, and values be considered and incorporated throughout the entirety of section 4.5 of the Eganville Community Expansion: Environmental Report?

4 Directions staff suggest that the traditional western approach to confine Indigenous ways of knowing and being to a single, stand alone, section is an act of epistemic colonialism through the cognitive marginalization of Indigenous peoples to belonging in certain places or spaces (Whetung, 2016).

#### 5.2.8 Indigenous Land Use and Traditional Knowledge

Under section 4.5.7 of the *Eganville Community Expansion: Environmental Report*, the following description is provided regarding '*Indigenous Land Use and Traditional Knowledge*' pertaining to the proposed project:

Stantec respectfully acknowledges that the Williams Treaties First Nations hold constitutionally protected harvesting rights in portions of the Study Area within Treaty 20. The value of traditional knowledge and oral history are acknowledged and welcomed and provide context and background to the findings of archaeological studies. We recognize that Indigenous communities have strong ties to their lands and that the use of these lands, from a development, ecosystems, and sustainability perspective, is of vital importance to the communities.

During the early post-contact period the north shore of Lake Ontario was occupied by the Huron-Wendat and the Michi Saagiig Nishnaabeg (Mississauga Anishinaabeg). The Mississauga traditional homeland stretched along the north shore of Lake Ontario and its tributary rivers from present-day Gananoque in the east to Long Point on Lake Erie in the west. Michi Saagiig oral histories speak to their people being in this area of Ontario for thousands of years, and the Michi Saagiig of today are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods. The Mississauga traditional territory was located between two powerful confederacies, the Three Fires Confederacy (consisting of the Odawa, Ojibwa and Pottawatomi) located to the north and west, and the Haudenosaunee (Five Nations Iroquois) Confederacy on the south shore of Lake Ontario in present-day New York State. In this geo-political context, the Mississauga acted as peacekeepers among the various Indigenous nations, acting as negotiators and emissaries (Kapyrka 2018). A copy of the document "Michi Saagiig Background – Historical Context" is located in Appendix A of the Stage 1 AA, which is located in Appendix E of the ER.

In 2018 the Williams Treaties were renegotiated, and the settlement agreement included: recognition of pre-existing treaty harvesting rights, federal and provincial apologies, financial compensation, and additional reserve lands. The Study Area is located within the Algonquin territory and slightly in Treaty 27 and 27 1/4, or the Rideau Purchase (Ontario Treaties 2022). (p. 67).

Section 4.5.7, which 4 Directions staff understand to be a subsection under the Socio-economic Environment description, appears to be more of a territorial acknowledge for the Williams Treaties First Nations, rather than a description of the various Indigenous land uses and knowledge(s) that exist within the study area.

#### How will section 4.5.7 of the ER incorporate AOPFN ways of knowing and being?

#### 5.2.9 Cultural Landscapes

Section 4.5.11 of the *Eganville Community Expansion: Environmental Report* discusses built heritage resources and cultural heritage landscapes in the study area. To use the term cultural heritage landscapes, while also not addressing that this study area is situated on an Indigenous Cultural Landscape, is an example of epistemic colonialism. Improved incorporation of the cultural heritage landscapes should be made.

#### 5.2.10 Indigenous 'Interests'

#### Under section 4.5.12 of the Eganville Community Expansion: Environmental Report, Stantec staff report,

This Project is within the Algonquin territory and slightly in Treaty 27 and 27 1/4, or the Rideau Purchase (Ontario Treaties 2022). There are no Indigenous communities located in the Study Area. The Algonquins of Pikwàkanagàn is located approximately 12 km from the Project Study Area (Algonquins of Pikwàkanagàn First Nation 2018).

Ontario, as the Crown, has a legal duty to consult with Indigenous peoples regarding projects or decisions that may adversely impact constitutionally protected Aboriginal or treaty rights. (p. 73)

4 Directions staff suggest that Indigenous 'interests' is not an appropriate title for this section, as the authors have noted, the nations listed have Rights, which hold further weight than interests, and ought to be treated as such.

#### 5.2.11 Mitigations, Protective Measures & Accommodations

Section 5 of the *Eganville Community Expansion: Environmental Report* discusses potential impacts, mitigation and protective measures and net impacts related to the proposed project. Under section 5.1.1, Construction, it is stated that clean up and restoration will take place:

in natural areas, cleanup includes restoring disturbed areas (road embankments) to preexisting conditions and re-seeding of the ROW. Water crossings and wetlands (if disturbed) will be restored and stabilized. Erosion and sediment controls (ESC) installed during construction

may be removed if necessary. Clean up will also include landscaping, and/or laneways and driveway rehabilitation. (p. 74)

As noted in the Requirements for Proposed Developments in AOPFN Territory, Enbridge and its representatives must commit to provide meaningful opportunities for AOPFN to identify, develop, and implement mitigations or offsets for project impacts specific to AOPFN members. This includes involving AOPFN in a meaningful way in monitoring and management of the proposed project including via AOPFN's Neya Wabun (Guardian) Program.

Based on discussions with members of AOPFN, 4 Directions staff recommend that this (and future) proposed project(s) in AOPFN territory consult with AOPFN to understand and agree upon appropriate mitigations and accommodations for AOPFN as a Rights holder. This could include, for example, the potential to recover clean excess materials (e.g., topsoil, rock) from project sites to be brough back to AOPFN for their use.

### 5.3 Technical Accuracy

#### 5.3.1 Route Evaluation

Under Section 2 of the *Eganville Community Expansion: Environmental Report*, Stantec highlights their approach to evaluating the study area and route options. Here, it is noted that,

The four alternative routes and their corresponding PPRs were evaluated by identifying features along the proposed segments with select environmental and socio-economic base data acquired from relevant published literature, maps, digital data, and the windshield surveys conducted from April 27 to April 29, 2022. (p. 15)

4 Directions staff raise concerns about the lack of rigour of the described route evaluation methods and, thus, their findings' verity.

## Are desktop reviews and windshield surveys over 3 days in the spring sufficient for understanding the socialecological system and relations present at the proposed site?

Given the discussions outlined here and in sections 5.1.1, 5.2.2 and 5.2.5 of this review, 4 Directions staff raise strong concerns with both the selection of the preferred route, and the lack of consultation with AOPFN through this selection process. Beyond the already recommended improved consultation with AOPFN, mentioned earlier, *4 Directions staff request that Stantec, on behalf of Enbridge, create a project map for AOPFN members that clearly delineates county roads and environmental features (e.g., wetlands and wildlife activity areas).* 

The Nation would like to see a more detailed map of the proposed study area and alternative routes to understand the full scope of potential impacts and context for these selections.

#### 5.3.2 Provincially Significant Wetlands

Under section 2.0 of the *Eganville Community Expansion: Environmental Report*, Stantec provides a comparative table highlighting the evaluation of the preliminary preferred route (PPR1) and the alternative route (AR0). In this table, (Stantec, 2023, Table 2.1), it is communicated that there are no provincially significant wetlands in the study area.

4 Directions staff raise concern that Tables 2.1 and 2.2 in the *Eganville Community Expansion: Environmental Report* notes that 0 (km) of Provincially Significant Wetlands (PSWs) occurred within the PPR1, AR0, PPR2, and AR3 route evaluations. Desktop review findings and the *Technical Field Memorandum: Enbridge Eganville Community Expansion* document (Appendix D) highlight that Enbridge's preferred route overlaps with the Snake River Wetland – a PSW.

Given this discrepancy, 4 Directions staff recommend that Stantec, on behalf of Enbridge, conduct further assessments to understand the presence and extent of wetlands in the study area. These assessments should be guided by four seasons approach and involve AOPFN to the extent that they are interested. Any costs incurred for such involvement by AOPFN are to be covered by the proponent as per AOPFN's consultation and accommodation standards.

#### 5.3.3 Terminology

Under section 3 of the *Eganville Community Expansion: Environmental Report*, on page 20, Stantec staff note that they will utilize the term "engagement" throughout the remainder of the ER to demonstrate that they respect the view that their consultation process may not satisfy the duty to consult. Yet, a paragraph later, Stantec Staff state that,

An extensive <u>consultation program</u> was undertaken for the Project, including development and maintenance of <u>an Indigenous groups and stakeholder Contact List</u>, which was used to distribute the required notices, newspaper advertisements, agency meetings, and provision of feedback to those who had questions, issues, or concerns or positive feedback about the project. (p. 20)

While Stantec opened by stating that sticking to the term engagement was selected for this report, to avoid the legal implications of consultation, they continue to call their engagement(s) with both Indigenous Rights holders and settler stakeholders a "consultation program". Aside from the concerns raised in section 5.2.2, this language is technically inaccurate following Stantec staff's initial statement regarding consultation/engagement.

#### 5.3.4 Data Sources

Under Section 4.2 of the *Eganville Community Expansion: Environmental Report,* Stantec staff discuss the data sources utilized for the ER socioeconomic assessment:

For the socio-economic elements of the assessment, the most recent demographic data were taken from 2021 Census of Population (Statistics Canada 2022) and the most recent economy and employment statistics were extracted from the 2016 Census of Population (Statistics Canada 2017a, b, c, d), as this was the latest statistic available at the time of the ER. (p. 29)

#### As noted by the Canadian Department of Justice (2023),

Statistical data should be viewed with caution. It is difficult to ensure the accuracy of census counts of Aboriginal people, and even more difficult in terms of crime related data. This problem results mainly from difficulties in acquiring census data from Indigenous individuals and families for various reasons, including community isolation and lack of internet capacity. Statistics Canada (2005) has acknowledged the challenges and Rudin has described the problem in detail (2007: 10-11). Additional problems include failure to report by provinces and territories, [...].

4 Directions staff would like to ask how the identified socioeconomic data sources represent potential impacts to AOPFN's members, economy, and health. Are Stantec and Enbridge employees aware of the limitations regarding relying on census data to understand socioeconomic aspects of Indigenous communities?

#### 5.3.5 Recognition of Indigenous Rights, Laws, and Protocols

Under Section 1.2.5 of the *Eganville Community Expansion: Environmental Report,* Stantec staff provide a table (1.1) summarizing potential environmental permit and approval requirements for the Project.

The provided table does not acknowledge or address First Nations' Rights, Laws, or protocols. Such actions, purposefully or not, marginalize Indigenous Knowledge Systems and degrade Indigenous Inherent and Treaty Rights.

4 Directions staff have adapted the provided table (Table 1, Appendix A) to clarify the order of magnitude to which Indigenous Rights and Law and Western requirements ought to be considered through reviews like the *Eganville Community Expansion: Environmental Report*.

#### 5.3.6 Presence of and Potential Impacts to Red-Winged Blackbirds

Within the provided *Eganville Community Expansion: Environmental Report*, there are no indications of the presence of or potential impacts to Red-winged Blackbirds. Based on 4 Directions and AOPFN Field Site visits, and further conversation within the AAC meeting on October 3<sup>rd</sup>, it is evident that there is a high potential for the Red-winged blackbird to be present and impacted in the study area.

Lived experience from AOPFN has observed a significant decrease in Red-winged blackbird populations in the greater region. As the preferred route is going through significant wetlands, which are red-winged blackbird habitat, 4 Directions staff and AOPFN recommend that further studies to understand the presence of this species. Such studies should take a four seasons approach. If red-winged black birds or their habitat are present in the study area, further mitigative measures must be considered. The mitigation techniques must be informed by AOPFN Rights, values, interests and knowledge systems.

### 6.0 Outcomes and Recommendations

The following sections provide a summary of the concerns raised by 4 Directions staff and/or AOPFN representatives during the desktop review and site visit for the Project, including recommendations and mitigations.

#### 6.1 Further Studies

As noted in section 5.3.1, 4 Directions staff raise concerns regarding the effectiveness of Stantec's methods to evaluating the proposed project routes. Further site surveys and assessments, beyond windshield surveys, are recommended to better understand the social-ecological system and the relations present at the study site.

#### 6.1.2 Wetland Evaluations

As noted in section 5.3.2, Stantec staff have reported no occurrences of PSWs in the study area. Based on desktop reviews, 4 Directions staff have identified the occurrence of a PSW, the Snake River Wetland. As such,

4 Directions staff recommend that Enbridge conduct further wetland evaluations to better understand the presence of and impacts to wetlands, including the Snake River PSW.

Such studies should take a four seasons approach to effectively understand the full presence of species and processes present within the proposed site. Such studies may also include the involvement of AOPFN, dependent on their interest. If AOPFN is involved with field activities, all costs incurred by the Nation will be covered by the proponent as per AOPFN's consultation and accommodation standards.

#### 6.1.3 Groundwater Studies

Within the Eganville Community Expansion Project: Environmental Report it is noted that,

Based on provincial mapping, the Site is not located within a source protection region, and therefore there are no Wellhead Protection Areas (WHPA), Highly Vulnerable Aquifers (HVAs), Intake Protection Zones (IPZs), municipal wellheads, or Source Protection Plan Policy and Significant Groundwater Recharge Areas (SGRAs) (MECP, 2022b).

The nearest WHPA is associated with the town of Almonte and is located about 77 km southeast of the Study Area.

In the Study Area, residents appear to rely on private wells for domestic water supply. MECP WWR's indicated that 459 well records occur within the Study Area [...]".

Based on the above quotation, 4 directions staff suggest that further hydrogeographic studies are required for this project. Although the 459 recorded private wells are not regulated, people still use and rely on them.

#### 6.1.4 Presence of Mammals

Following the September 6<sup>th</sup>, 2023, site visit where an incidental siting of Beaver occurred, 4 Directions staff recommend further four season studies to understand the presence of mammals (e.g., deer and beaver), and their habitat in the study area.

#### 6.1.5 AOPFN-led Studies

4 Directions Staff recommend that this and/or future projects in AOPFN territory include an Algonquin Knowledge and Land Use Study for the land base that will be affected. Such studies consider the current land uses of the study area, their impacts, and evaluate the cumulative impact of additional proposed project. Such studies could include the identification of Cultural Keystone Species, and/or bioculturally significant spaces, species, or communities.

Further, AOPFN retains the right to require additional studies such as cultural and rights studies, and participation in early biophysical fieldwork, site assessment, and/or inventories at the expense of the proponent.

#### 6.2 Mitigations

The following sections provide further context and recommended mitigations in response to the concerns highlighted throughout this review. Mitigations presented are representative of on-site discussions with representatives from AOPFN and applicable laws, policies, regulations, and guidelines, identified in section 3.0 of this review.

#### 6.2.1 Timber End-use & AOPFN Harvesting Areas

Forests, to Indigenous peoples, provide more than just timber, it provides a place to reflect, a source of medicines and food, and much more. In turn, the Algonquin people have been striving to revitalize their role in maintaining a healthy relationship within these ecosystems. With this in mind, the "Algonquin Nation Law," conceived in 1992, was formulated to guarantee the sustainable coexistence of wildlife and plant species while upholding conservation and safety standards (AOPFN, 2023B). Furthermore, it is important that Enbridge and other proponents understand that traditional activities such as harvesting of wildlife, fish, migratory birds and plants, are recognized by the *Constitution Act*, 1982, and are upheld by the Supreme Court of Canada.

4 Directions recommend that Enbridge provide AOPFN community members with the opportunity to collect wood products from the areas requiring vegetation clearing. This would facilitate compensation to Indigenous Rights holders for the impact of the project on culturally significant species.

On September 7<sup>th</sup>, 4 Directions met with members of AOPFN to debrief following the September 6<sup>th</sup> site visit. During these discussions, community members identified harvesting areas that overlap with the project area, specifically along Enbridge's preferred route for the pipeline extension. Since time immemorial, the Algonquin people have relied on the gathering of plants and animals for sustenance and commerce. These traditions reflect a deep reverence for nature and an enduring dedication to responsibly overseeing natural resources, preserving this legacy for future Algonquin generations (Algonquins of Ontario, 2023).

Enbridge must work with AOPFN to ensure community members are able to continue accessing significant harvesting areas that overlap with the project area and to work with them to develop plans to mitigate negative

impacts to these areas. Due to a legacy of appropriation, abuse, and misuse of data collected by and from Indigenous peoples, it's important that all knowledge shared by AOPFN for the Eganville Community Expansion project should be maintained under OCAP principals (FNIGC, 2023).

#### 6.2.2 Vegetation Clearing & Breeding Birds

During the September 6<sup>th</sup> site visit, 4 Directions biologists and AOPFN members observed evidence of road mortality for an Eastern Meadowlark along Mcgaghran Rd, near Snake River. It's imperative that Enbridge minimizes the impacts of vegetation clearing and other active construction activities on bird populations, as per the Migratory Bird Convention Act, 1994; therefore, vegetation removal should not take place during the established core local breeding bird season, which extends from April 1 – August 31 in the local area (as per Environment and Climate Change Canada Guidelines, 2023).

#### 6.2.3 Butternut

During the desktop review, 4 Directions biologists identified Butternut (*Juglans cinerea*) records from the Ontario Natural Heritage Information Centre (NHIC) and observed potential habitat along both the preferred and alternative routes for the proposed pipeline extension project. 4 Directions agrees with Stantec's recommendation to conduct a survey within the project area to confirm the presence of Butternut trees within 25m of the temporary workspace and potential excavation area (Stantec, 2023).

If butternut trees are confirmed within the project area, a Butternut Health Assessment is recommended to determine the potential presence of the fungal pathogen known as Butternut Canker (*Ophiognomonia clavigignenti-juglandacearum*) and to assign a specific category to the tree based on the methods outlined by the Ontario Government (2021) and FGCA (2015). This classification is particularly pertinent, as the tree could potentially be archived through seed collection. In addition, 4 Directions strongly recommends performing a collection of leaf samples from the Butternut tree for eDNA analysis at the cost of the proponent. If there is are seed-bearing butternut present on site, or butternut which are suspected to produce seeds in the future, there is an opportunity for First Nation communities to harvest butternut seeds or samplings. The collection of baseline information on genetics and hybridity testing will be invaluable for supporting the Ontario's Butternut recovery strategy (Environment Canada, 2010). One of the key research priorities for the species is furthering our understanding of its genetic diversity and the potential for resistance to Butternut Canker (Environment Canada, 2010). There is an urgency to further our understanding of Butternut genetic conservation and its

application to restoration approaches, as eventually there will be a genetic bottleneck due to canker-related mortality and consumption of seeds by granivores (Pike et al., 2021). These conservation and restoration approaches must be informed by AOPFN Rights.

If butternut trees are found to be impacted during the proposed project, 4 Directions staff recommend that Enbridge utilize a 30:1 replanting ratio. If such measures are taken, monitoring (by representatives of AOPFN, if interested) will take place to ensure the trees are thriving.

#### 6.2.4 Wetlands & Watercourses

Within the project area, 4 Directions biologists identified the following evaluated wetlands and cold/cool water features to overlap with Enbridge's preferred route for the pipeline expansion project in Eganville: Mink Lake, Cold Water Creek Wetland, Snake River Wetland (Provincially Significant), Mink Creek, and Snake River.

Indigenous communities have a special and sacred relationship with water. Water represents the interconnectedness with all life and is a gift from the Creator. Many traditional activities depend on water, and access to water connects these activities to surrounding ecosystems. Water is respected through ceremony and practice. It is understood that water cannot be owned or possessed for sale or other obstructive uses, but that Water is to be shared and protected.

Appropriate environmental buffers for wetlands and watercourses should be negotiated with the Rights Holders and the ones who grant harm or destruction to the Rights under Section 35 of the Canadian Constitution. The project area overlaps with the traditional, unceded, unsurrendered territory of the Algonquins of Pikwàkanagàn First Nation. While there are no historic treaties signed between the Crown and the Algonquins, 4 Directions would argue that similar to the Williams Treaty (2018) and the 2008 Water Declaration for the Michi Saagiig Peoples, all wetlands are significant and are to be afforded protections regardless of the provincial designation. In the Eganville project site visit debrief meeting on September 7<sup>th</sup>, between 4 Directions and AOPFN, community members identified that they were in agreeance for 120m buffers being applied to all wetland features, regardless of their provincial designation, which mirrors what is formally outlined in the Michi Saagiig's Williams Treaty. Such buffers reduce potential negative impacts to overlapping or adjacent wetlands and watercourses. The establishment of the buffer should include the installation of fencing to visually mark the extent of the project work area for onsite staff. On-site inspection should be undertaken to confirm the implementation of the mitigation measures to identify corrective actions, if required.

#### 6.2.4.1 Erosion and Sediment Control

During the lifespan of the Enbridge Eganville Community Expansion project, change is inherent to the landscape and can include removing vegetation, stripping topsoil, and alterations to topography and drainage patterns. A wide range of adverse impacts can occur by releasing sediment-laden runoff and dust from construction sites. As stated in the Toronto and Region Conservation Authority's Erosion and Sediment Control Guide (2019), these impacts can include:

- Excessive amounts of deposited and suspended sediment reduce the productive capacity of aquatic environments and increase the regularity of dredging in lakes, rivers, and wetlands reservoirs.
- Deposited sediment interferes with spawning and changes the habitat of bottom-dwelling organisms and juvenile fish in gravel stream beds.
- In natural water features, high amounts of suspended sediments can abrade gills, reduce visibility needed for mating and feeding, and reduce sunlight penetration, which thwarts photosynthesis in algae and aquatic plants.
- Heavy metals and nutrients, which have a tendency to bond to these particles, are just two additional contaminants that sediment can introduce into receiving waters.
- Tracking of sediment by vehicles off-site leads to roads that are heavily loaded with sediment, increased loads of sediment in the storm sewer system, and eventually increased loads of sediment in receiving waters.
- Wind-blown dust from building sites can damage the air quality and settle on nearby areas, such as roads, homes, and other private property.

As such, it is important for Enbridge staff and their contractors to conduct careful planning and oversight to minimize these changes and mitigate their impacts on adjacent and downstream natural features and on other private property; knock-on benefits from effective siltation fencing also include protection of wildlife (e.g., acting as wildlife fencing). Table 1 of Appendix D: Technical Memo outlines best practice measures to control soil erosion concerns to protect any nearby wildlife, natural heritage features, stormwater management, drainage features and/or local receiving waterways within the Enbridge Eganville Community Expansion project area.

#### 6.2.4 Mitigating Right of Way (ROW) Impacts on Reptiles and Amphibians

During the desktop review, 4 Directions biologists identified 14 amphibian species and 8 reptile species records from the Ontario Natural Heritage Information Centre (NHIC) and the Ontario Reptile & Amphibian Atlas (2020) and observed evidence of species presence (see Appendix B and C) and potential habitat along both the preferred and alternative routes for the proposed pipeline extension project. As such, there are concerns for road mortality due to increased activity of the roads where Enbridge has identified the preferred and alternative routes for the 21km pipeline extension.

Rytwinski and Fahrig (2012) conducted a meta-analysis using information from 75 studies that evaluated the relationship between roads or traffic and population size and found that amphibians and reptiles were the species groups most adversely impacted. Roads pose many dangers to amphibian and reptile populations in Ontario, including habitat loss, degradation, fragmentation, and direct animal mortality (see OMNRF, 2016 for examples).

While there is no singular solution for mitigating road effects on amphibians and reptiles, in 2016, the Ontario Ministry of Natural Resources and Forestry published best management practices to guide designing, implementing and monitoring mitigation measures to restore connectivity and reduce road mortality. Tables 2 & 3 of Appendix D: Technical Memo outline best practice measures to consider, and Enbridge staff and contractors are utilizing roads for access and constructing within the ROW.

#### 6.2.5 Deer Wintering Areas

The desktop assessment conducted by 4 Directions biologists, identified the presence of White-tailed Deer Wintering Area (Stratum II), overlapping with Enbridge's preferred route for the pipeline expansion and adjacent to alternative routes 2 & 3. Deer are recognized as a culturally significant species for AOPFN (AOPFN, 2023) and, as such, are afforded protections under AOPFN's Aboriginal Rights.

Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to winter snow and cold onset. This is a behavioural response, and deer will establish traditional use areas. The yard is composed of two areas referred to as Stratum I and Stratum II. Stratum II covers the entire winter yard area and is usually a mixed or deciduous forest with plenty of browse available for food. Agricultural lands can also be included in this area. Deer move to these areas in early winter, and generally, when snow depths reach 20 cm, most of the

deer will have moved here. If the snow is light and fluffy, deer may continue to use this area until 30 cm snow depth. In mild winters, deer may remain in the Stratum II area the entire winter.

The Core of a deer yard (Stratum I) is located within the Stratum II area and is critical for deer survival in areas with severe winters. It is primarily composed of coniferous trees (pine, hemlock, cedar, spruce) with a canopy cover of more than 60%. Ontario Ministry of Natural Resources and Forestry (OMNRF) determines deer yards following methods outlined in "Selected Wildlife and Habitat Features: Inventory Manual" (2014).

Table 4 of Appendix D: Technical Memo outlines the main potential development effects and mitigation options for the White-tailed Deer Wintering Area (Stratum II) that should be followed during the lifecycle of the Eganville Community Expansion project. It is important to note that the OMNRF's manual does not outline specific impacts relating to pipeline projects; therefore, the road development category was used for approximated threats and mitigations information.

To better understand how deer use this area, 4 Directions staff recommend that Stantec take a four seasons approach to evaluate and assess the site.

Beyond these above-mentioned mitigations, it is essential to further consider Enbridge's approach to implementing a pipeline near and/or through deer yards. As these areas are of large concern to AOPFN, monitors from AOPFN must be present, at the expense of the proponent, to monitor construction impacts such as noise.

When development occurs within identified deer wintering yards, there is a risk of substantially altering the function of the yard if a significant portion of habitat is affected. Deer exhibit a strong tradition of use for wintering habitat, so much so that even after a development occurs, they will continue to migrate to the habitat feature. As such, even smaller developments within or adjacent to a deer yard can have a negative impact, particularly on how deer move to and from the winter habitat. Studies have shown that drilling noises, specifically, can provide significant disturbances to deer habitat use (Drolet, Dussault &Côté, 2016).

#### 6.2.7 Selection of Pipeline Route

Based on the above observations made by 4 Directions biologists and AOPFN community members during the desktop assessment phase and September 6th site visit, clarity is required on how Stantec and Enbridge selected

the preferred route for the pipeline expansion. During the site visit it became quite clear to 4 Directions and AOPFN that the alternative routes "AO", "A2", and "A3", encompassed areas that have large road allowances and have already been altered and, therefore, likely involving lower environmental impacts than the identified preferred route. It's 4 Directions and AOPFN's position that Enbridge re-consider selecting the mentioned secondary routes for the pipeline extension to mitigate impacts both to the environment and AOPFN's access to significant harvesting areas. 4 Directions and the AOPFN strongly recommend an opportunity for more dialogue to occur to continue to uphold the protection and preservation of Indigenous inherent, Aboriginal and Treaty rights.

#### 6.2.8 Consideration of Climate Change

As global rates of climate change continue to progress, we see increasing pressures on local social-ecological systems. These pressures include increases in instances of natural pressures like wildfire, flooding, tornadoes, and ecological regime change. For example, section 4.3.7 of the *Eganville Community Expansion: Environmental Report* Stantec staff note that "Potential natural hazards in the Study Area are limited and would likely be the result of flooding of watercourses associated flooding/high-water levels and seismic activity" (p. 33). Also on page 33, it is noted that "the Ottawa Valley have experienced an increased number of tornadoes over the past few years".

The City of Ottawa's Climate Resilience Strategy (2019) notes, "Ottawa's climate is changing. Overall Ottawa will become much [...] wetter over the coming decades, with more [...] heavy rain and extreme weather events like severe winds, floods or winter storms. The City is developing a Climate Resiliency Strategy to guide how Ottawa can prepare for and respond to the anticipated impacts of changing climate conditions". Moreover, the Climate Atlas of Canada communicates that the region of Ottawa as well as Algonquins of Pikwakanagan First Nation are already, and expected to continue, seeing an increase mean in 30+ degrees Celsius days (Prairie Climate Centre, 2019).

As such, Enbridge must consider the effects of Climate Change and how they could impact the Study Area today, or in the future. For example, an increase in severe rain and flooding events will likely impact the health and function of local water systems. For local effects to this study area, resources such as the <u>Northern Tornadoes</u> <u>Project</u>, founded at Western University in 2017, could also be useful.

# 7.0 Closing Remarks

We trust that this review will help your consultation efforts. If you have any questions, please do not hesitate to contact us.

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# 9.0 Appendices

# Appendix A – Applicable Natural Heritage Planning Considerations

 TABLE 1: [DRAFT] SUMMARY OF POTENTIALLY APPLICABLE ENVIRONMENTAL LEGISLATION AND APPLICABLE NATURAL HERITAGE PLANNING CONSIDERATIONS, ADAPTED FROM STANTEC,

 2023. BLUE HIGHLIGHTED BOXES INDICATE ADDITIONS BY 4 DIRECTIONS STAFF THAT WERE NOT IDENTIFIED IN THE EGANVILLE COMMUNITY EXPANSION PROJECT: ENVIRONMENTAL REPORT.

	Vater Declaration (Resolution	INDIGENOUS
	Vater Declaration (Resolution	
Assembly of First Nations	01/2013/	First Nations, as Rights holders, must be consulted for matters regarding water.
Chiefs of Ontario	COO Water Declaration (Resolution 08/87)	The Chiefs in Assembly at the 2008 Special Chiefs Assembly in Toronto passed resolution 08/87 Water Declaration by consensus adopting the water declaration. First Nations, as Rights holders, must be consulted for matters regarding water.
The Supreme court of Canada Th	e Constitution Act (1982)	Duty to Consult and Accommodate Indigenous Rights holders under section 35.
AOPFN AOPFN AOPFN Developr	Rights (Constitution Act, 1982) onquin Treaty Negotiation Consultation, Engagement, and modation Requirements for sed Developments in AOPFN Territory (2023). Principles Related to Proposed ment in AOPFN territory (2023).	AOPFN retain Aboriginal Rights as protected under section 35 of the constitution. As such, proponents operating within AOPFN territory whose projects have the potential to impact AOPFN Rights, interests, and values, have a legal duty to Consult and Accommodate AOPFN. Any projects which have the potential to impact AOPFN Rights, Interests and Values must follow AOPFN's consultation, engagement and accommodation protocols, including adherence to AOPFN's Principles Related to proposed developments in AOPFN. Canada, Ontario and the Algonquins of Ontario are working together to resolve a land claim through a negotiated Final Agreement that will take the form of a modern-day treaty. All three parties are committed to finding a balanced and shared solution that respects the rights of all Canadians. As has been done in other parts of Canada, the Algonquins of Ontario submitted a comprehensive land claim based on unresolved Aboriginal rights and title, having never signed a treaty with the Crown. The Algonquin Land Claim is one of the largest and most complex land claims in Ontario currently under negotiation, a territory covering approximately 36,000 square kilometers, and populated by approximately 1.2 million people. Following approval by all three parties, the Algonquins of Ontario, Canada and Ontario signed this non-

		negotiations toward a Final Agreement can begin. This is just one step in a lengthy process before a Final Agreement can be reached.					
		The Michi Saagiig participated in eighteen (18) treaties from 1781 to 1923 to allow the growing number of European settlers to establish in Ontario. Pressures from increased settlement forced the Michi Saagiig to slowly move into small family groups around the present-day First Nations of the Williams Treaties.					
		The Williams Treaties First Nations are:					
WTFN	The Williams Treaties (1923) The Williams Treaties (2018) WTFN 2018 Settlement Agreement 2018 Apology for 1923 Williams Treaties Inherent Rights (Constitution Act, 1982)	<ul> <li>Alderville First Nation</li> <li>Beausoleil First Nation</li> <li>Chippewas of Rama First Nation</li> <li>Chippewas of Georgina Island First Nation</li> <li>Curve Lake First Nation</li> <li>Hiawatha First Nation</li> <li>Hiawatha First Nation</li> <li>Mississaugas of Scugog Island First Nation</li> <li>Williams Treaties First Nations maintain their Rights to all water sources, including the ability to camp on the shore or bank of any water source.</li> <li>Michi Saagiig Treaties always maintained cultural conservation knowledge systems; no settler shall:         <ul> <li>Harm a wetland</li> <li>Live along the water or on an island</li> <li>Destroy culturally significant forest stands</li> <li>Harm, alter, or change water without consent from Rights holders.</li> </ul> </li> <li>On November 17, 2018, in Rama, Ontario, the Honourable Carolyn Bennett, Minister of Crown-Indigenous relations, apologized on behalf of the Government of Canada for the negative impacts of the 1923 Williams Treaties on the Williams Treaties First Nations.</li> </ul>					
Regusoleil First Nation	The Williams Treaties (1923) The Williams Treaties (2018)	See row: WTEN					
	WTFN 2018 Settlement Agreement 2018 Apology for 1923 Williams Treaties						

	Inherent Rights (Constitution Act, 1982)	
	The Williams Treaties (1923)	
	The Williams Treaties (2018)	
Chippewas of Georgina Island First Nation	WTFN 2018 Settlement Agreement	See row: WTFN
	2018 Apology for 1923 Williams Treaties	
	Inherent Rights (Constitution Act, 1982)	
	The Williams Treaties (1923)	See row: WTFN
	The Williams Treaties (2018)	The Chippewas of Rama First Nation Consultation and Accommodation protocol is intended to guide consultation within the traditional, treaty and reserve territory (collectively, the "RFN Territory") of the
Chippewas of Rama First Nation	WTFN 2018 Settlement Agreement	Chippewas of Rama First Nation. Historical failings to meaningfully consult with First Nations stakeholders in the development of various projects across Canada has led to attempts to improve and
	2018 Apology for 1923 Williams Treaties	streamline the process through with proponents and government engage with First Nations. In light of this, RFN has developed this protocol to guide those looking to engage with, consult and provide
	Chippewas of Rama First Nation Consultation and Accommodation Protocol (2021)	accommodation for the Chippewas of Rama First Nation. The process begins with the completion of a Notice/Application to Consult. Proponents will provide information in the prescribed manner to facilitate effective, efficient and timely responses to requests. RFN will then assess the proposed project and either assign the project to a consultation process or reject the application to consult. Proponents
	Inherent Rights (Constitution Act, 1982)	are encouraged to fully and completely complete the application to consult to ensure a timely response and avoid requests for additional information (Chippewas of Rama First Nation, 2021).
	The Williams Treaties (1923)	
	The Williams Treaties (2018)	See row: WTFN
Alderville First Nation	WTFN 2018 Settlement Agreement	This Protocol sets out AFN's rules, under its laws and its understanding of respectful application of Canadian law, for the process and principles for consultation and accommodation between AFN, the
	2018 Apology for 1923 Williams Treaties	Crown and Proponents, about any Activity that is proposed to occur in AFN's Traditional Territory and/or Treaty Territory or that might cause an Impact to the Environment or Health therein or AFN
	Alderville First Nation Consultation Protocol	Rights. AFN expects the Crown and Proponents to respect and abide by this Protocol in all such interactions with AFN. (Alderville First Nation, 2015).
	Inherent Rights (Constitution Act, 1982)	

Curve Lake First Nation	The Williams Treaties (1923)	See row: WTFN
	The Williams Treaties (2018)	Whereas Curve Lake First Nation asserts Aboriginal and Treaty rights over lands and resources within our Traditional Territory: Whereas section 35 of the Constitution Act, 1982 recognizes and affirms the
	WTFN 2018 Settlement Agreement	existing Aboriginal and Treaty right of the Aboriginal peoples of Canada; Whereas the Supreme Court of Canada has established that Aboriginal peoples asserting Aboriginal and Treaty rights must be consulted
	2018 Apology for 1923 Williams Treaties	and accommodated prior to occurrence of any decisions, conduct or activities that may have an impact on the rights and interests of Aboriginal peoples; Whereas Curve Lake First Nation is willing to engage in
	Curve Lake First Nation Consultation and Accommodation Standards, 2013.	consultations, expects to be consulted, and if appropriate, to be accommodated with respect to any and all decisions, conduct and activities that have the potential to have an adverse effect on Aboriginal and
	Inherent Rights (Constitution Act, 1982)	Treaty rights respecting lands and resources within the Curve Lake First Nation Traditional Territory; Whereas any parties seeking to carry on activities within the Curve Lake First Nation Traditional Territory should only do so in accordance with this Standard and with the free, prior and informed
		consent of the Curve Lake First Nation. (Curve Lake First Nation, 2013).
	The Williams Treaties (1923)	WHEREAS Hiawatha First Nation asserts inherent and treaty rights over land and resources within our
	The Williams Treaties (2018)	Traditional Territory; WHEREAS section 35 of the Constitution Act, 1982 recognizes and affirms the existing inherent and treaty rights of Indigenous peoples, which includes the Mississauga people of
	WTFN 2018 Settlement Agreement	Canada; WHEREAS the Supreme Court of Canada has established that Indigenous peoples, which includes the Mississauga people asserting inherent and treaty rights must be consulted and
Hiawatha First Nation	2018 Apology for 1923 Williams Treaties	accommodated prior to occurrence of any decisions, conduct or activities that may have an impact on the rights and interests of the Mississauga people; WHEREAS Hiawatha First Nation is willing to engage
	Hiawatha First Nation Consultation and Accommodation Standards, 2013.	in consultation, expects to be consulted, and if appropriate, to be accommodated with respect to any and all decisions, conduct, and activities that have a potential to have an adverse effect on inherit and treaty rights respecting lands resources within the Hiawatha First Nation Traditional Territory; WHEREAS
	Inherent Rights (Constitution Act, 1982)	any parties seeking to carry on activities within the Hiawatha First Nation Traditional Territory should only do so in accordance with this standard and with the free prior and informed consent of Hiawatha First Nation. (Hiawatha First Nation, 2013).
	The Williams Treaties (1923)	
	The Williams Treaties (2018)	
Mississaugas of Scugog Island First Nation	WTFN 2018 Settlement Agreement	See row: WTFN
	2018 Apology for 1923 Williams Treaties	
	Inherent Rights (Constitution Act, 1982)	

Agency	Legislation, Regulation or Authority	Requirement
		FEDERAL
Environment and Climate Change Canada (ECCC)	Clearing of vegetation in accordance with the Migratory Bird Convention Act, 1994 (MBA) Migratory Birds Regulations, 2022	<ul> <li>ECCC does not require a permit to be issued for vegetation clearing, however, precautions need to be taken so that no breeding birds or their nests are harmed or destroyed during the bird nesting season as a result of construction of the Project.</li> <li>Nest sweeps will be required at a maximum of 7 days prior to vegetation removal during the bird nesting season, (e.g., April 1 to August 31), as per the MBCA</li> <li><i>Directions notes:</i></li> <li>The MBCA protects and conserves migratory bird populations, individuals and nests of migratory birds in Canada by prohibiting disturbance, destruction, taking or possession without appropriate authorization.</li> <li>Best management practices must be adhered to in order to comply with the guidelines set out within the MBCA and to avoid construction-related effects on migratory birds and their nests.</li> </ul>
ECCC (terrestrial species) Fisheries and Oceans Canada (DFO) (aquatic species)	Species at Risk Act (SARA), 2002	<ul> <li>Permits are required by those persons conducting activities that may affect species listed on Schedule 1 SARA as extirpated, endangered, or threatened and which contravene the Act's general or critical habitat prohibitions in watercourses (aquatic species) or on federal lands (terrestrial species).</li> <li><i>4 Directions notes:</i> The SARA contains general prohibitions that make it an offence to hill, harm, harass, capture, take a federally-listed species at risk (SAR). The Act also contains general prohibitions that make it an offence to damage or destroy critical habitat of SAR or SAR habitat located on federal lands or other designated lands.</li> </ul>
DFO	Review and authorization under the <i>Fisheries Act, 1985</i>	<ul> <li>The Fisheries Act, 1985 is the main federal law governing fisheries in Canada. The Fisheries Act, 1985 provides for the management and control of fisheries, the conservation and protection of fish, the protection of fish habitat and pollution prevention.</li> <li>At detailed design, the final crossing methods will be reviewed and DFO's Measures to Protect Fish and Fish Habitat will be reviewed to identify mitigation and protective measures for the proposed crossing locations. For crossings and activities not covered by these measures, the DFO-Enbridge Gas agreements on standard sediment control plans for crossing alternatives will be reviewed for applicability and practice. For any remaining crossings and activities not specifically covered by the above measures, DFO review may be required. The proposed method for pipeline water crossings (i.e., horizontal directional drilling) will likely not require authorization provided measures to avoid causing a HADD – "the harmful alteration, disruption or destruction of fish habitat" – of fish habitat are followed during construction. These measures include completing the work during the appropriate timing window (Ministry of Natural Resources and Forestry [NDMNRF] formerly the Ministry of Northern Development, Mines, Natural Resources and Forestry [NDMNRF] designated</li> </ul>

		construction windows note that In-water work is permitted from July 1 to March 14 for warm water crossings and from July 1 to September 15 for cold water crossings), installation of appropriate sediment and erosion control measures (i.e., silt fencing around disturbed areas and development of a contingency plan). If these measures are followed, a project of this nature is typically considered to be low risk to fish and fish habitat and can proceed without DFO review.
Agency	Legislation, Regulation or Authority	Requirement
		Provincial
Hydro One Networks Inc. (Hydro One)	Crossing Approval	Required for crossing Hydro One's electric transmission corridor. This will be determined during detailed design.
Infrastructure Ontario (IO)	Approval under the Ministry of Infrastructure Public Work Class Environmental Assessment (Class EA)	Required to obtain an easement on IO owned and/or managed lands. This will be determined during detailed design.
Ministry of the Environment, Conservation and Parks (MECP)	Permit to Take Water (PTTW) or Environmental Activity and Sector Registry (EASR) (surface and groundwater) under the Ontario Water Resources Act (1990)	Under Ontario Regulation (O. Reg.) 64/16 and O. Reg. 63/16, the MECP requires a PTTW for dewatering in excess of 400,000 L/day, and an EASR for dewatering between 50,000 and 400,000 L/day. This can include trench dewatering and taking water for hydrostatic testing from a pond, lake, etc. There are some exceptions for surface water takings where active or passive surface water diversions occur such that all water taken is returned to within another portion of the same surface water feature.
	Permitting or registration under the Endangered Species Act (ESA) (2007)	An ESA permit or Registration is required for activities that could impact species protected under the ESA. Consultation will occur with the MECP to determine ESA permitting requirements. As indicated in Section 9 (1) a of the ESA (2007), "No person shall kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species." As indicated in Section 17 (1), "the Minister may issue a permit to a person that, with respect to a species specified in the permit that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species, authorizes the person to engage in an activity specified in the permit that would otherwise be prohibited by Section 9 or 10."
Ministry of Citizenship and Multiculturalism (MCM)	Archaeological clearance under the Ontario Heritage Act (OHA)	A Stage 1-2 archaeological assessment (AA) is required along the road allowance and temporary land use areas to identify areas of archaeological potential prior to any ground disturbances and/or site alterations. Depending on the results of the Stage 1-2 AA, Stage 3 and 4 AA's may be required. The completed AA reports are forwarded to the MCM for review and comment.
	Review of Built Heritage and Cultural Heritage Landscapes under the OHA	The MTCS Criteria for Evaluating Potential Built Heritage Resources and Cultural Heritage Landscapes (Checklist) was completed to determine the presence or absence of built heritage resources and cultural heritage landscapes in the Study Area and identify if further work is required. The Checklist determined the potential for built heritage resources and cultural heritage landscapes within the Study Area and a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment (CHR) was recommended. The CHR will be undertaken to identify the presence of built heritage resources and

		cultural heritage landscapes within the Study Area, and to understand the potential impacts of the Project on these resources. The CHR will include an impact assessment of the preferred alternative, with mitigation measures and recommendations.
		Under Section 2.1, Natural Heritage, the Policy statement notes:
		2.1.1 Natural features and areas shall be protected for the long term.
	Provincial Policy Statement, 2020 under the Planning Act, 1990.	2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.
Ministry of Municipal Affairs and		2.1.3 Natural heritage systems shall be identified in Ecoregions 6E & 7E1, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.
Housing		2.1.4 Development and site alteration shall not be permitted in: a) significant wetlands in Ecoregions 5E, 6E and 7E1; and b) significant coastal wetlands.
		2.1.5 Development and site alteration shall not be permitted in: a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E1; b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1; c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1; d) significant wildlife habitat; e) significant areas of natural and scientific interest; and f) coastal wetlands in Ecoregions 5E, 6E and 7E1 that are not subject to policy 2.1.4(b) unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.
Ministry of Transportation (MTO)	Encroachment Permit under the Highways Act	Required if work will occur in the road allowances.
Agency	Legislation, Regulation or Authority	Requirement
		Municipal
County of Renfrew (Upper-Tier)	County of Renfrew Official Plan	The purpose of the Plan is to provide a policy framework for growth and development in the County. The Plan will be reviewed as required by the Planning Act. The County of Renfre Official Plan oversees the townships of Admaston/Bromley, Bonnechere, and North Algona-Wilberforce.
Township of Admaston/ Bromley (Lower-Tier)	Tree Canopy Policy	May be required to adhere to Tree Canopy Policy By-Law No. 2019-17 if trees are removed during construction.
Township of Bonnechere (Lower- Tier)	Noise By-Law Exemption Permit	Required if construction activities will occur during the prohibited times outlined in the Township of Bonnechere Noise By-Law No. 2013-16.

	Notice Provisions by-law to provide for notice provisions as required under the municipal Act, 2001	Notice will be required if permanently closing or blocking off a street, lane or walkway during construction as outlined in the Township of Bonnechere Notice Provisions By- Law 2007-88.
Township of North Algona Wilberforce (Lower-Tier) Si	Noise By-Law Exemption Permit	Required if construction activities will occur during the prohibited times outlined in the Township of North Algona Wilberforce By-Law No. 2020-49.
	Site Plan Control By-Law Exemption Permit	Required if construction activities will occur on lands which exhibit physical constraints to development and/ or which are environmental sensitive to developments as outline in By-Law 16-98 of the Township of North Algona Wilberforce. This will be determined during detailed design.

# Appendix B– Species Tables

TABLE 2: AMPHIBIAN SPECIES LIST

Amphibians							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
American Bullfrog	Lithobates catesbeianus	G5	S4				Ontario Reptile and Amphibian Atlas
American Toad	Anaxyrus americanus	G5	S5				Ontario Reptile and Amphibian Atlas
Blue-spotted Salamander	Ambystoma laterale	G5	S4				Ontario Reptile and Amphibian Atlas
Eastern Red-backed Salamander	Plethodon cinereus	G5	S5				Ontario Reptile and Amphibian Atlas
Gray Treefrog	Dryophytes versicolor	G5	S5				Ontario Reptile and Amphibian Atlas
Green Frog	Lithobates clamitans	G5	S5				Ontario Reptile and Amphibian Atlas
Mink Frog	Lithobates septentrionalis	G5	S5				Ontario Reptile and Amphibian Atlas
Mudpuppy	Necturus maculosus	G5	S4	NAR	NAR		Ontario Reptile and Amphibian Atlas
Northern Leopard Frog	Lithobates pipiens	G5	S5	NAR	NAR		Ontario Reptile and Amphibian Atlas
Northern Two-lined Salamander	Eurycea bislineata	G5	S4				Ontario Reptile and Amphibian Atlas
Pickerel Frog	Lithobates palustris	G5	S4	NAR	NAR		Ontario Reptile and Amphibian Atlas
Spring Peeper	Pseudacris crucifer	G5	S5				Ontario Reptile and Amphibian Atlas
Western Chorus Frog	Pseudacris triseriata	G5	S4				Ontario Reptile and Amphibian Atlas
Wood Frog	Lithobates sylvaticus	G5	S5				Ontario Reptile and Amphibian Atlas

TABLE 3: BIRD SPECIES LIST

Birds							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Alder Flycatcher	Empidonax alnorum	G5	S5B				Ontario Breeding Bird Atlas
American Bittern	Botaurus lentiginosus	G5	S5B				Ontario Breeding Bird Atlas
American Black Duck	Anas rubripes	G5	S4				Ontario Breeding Bird Atlas
American Coot	Fulica americana	G5	S3B,S4N	NAR	NAR		Ontario Breeding Bird Atlas
American Crow	Corvus brachyrhynchos	G5	S5				Ontario Breeding Bird Atlas
American Goldfinch	Spinus tristis	G5	S5				Ontario Breeding Bird Atlas
American Kestrel	Falco sparverius	G5	S4				Ontario Breeding Bird Atlas
American Pipit	Anthus rubescens	G5	S4B				Ontario Breeding Bird Atlas
American Redstart	Setophaga ruticilla	G5	S5B				Ontario Breeding Bird Atlas

Birds							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
American Robin	Turdus migratorius	G5	S5				Ontario Breeding Bird Atlas
American Tree Sparrow	Spizelloides arborea	G5	S5				Ontario Breeding Bird Atlas
American Wigeon	Mareca americana	G5	S4B,S4N,S5M				Ontario Breeding Bird Atlas
American Woodcock	Scolopax minor	G5	S4B				Ontario Breeding Bird Atlas
Bald Eagle	Haliaeetus leucocephalus	G5	S4	SC	NAR		Ontario Breeding Bird Atlas
Baltimore Oriole	Icterus galbula	G5	S4B				Ontario Breeding Bird Atlas
Bank Swallow	Riparia riparia	G5	S4B	THR	THR	THR	Ontario Breeding Bird Atlas & Ontario Natural Heritage Information Centre
Barn Swallow	Hirundo rustica	65	S4B	sc	sc	THR	Ontario Breeding Bird Atlas & Ontario Natural Heritage Information Centre
Barred Owl	Strix varia	65	54D 55				Ontario Breeding Bird Atlas
Barrow's Goldeneve	Bucenhala islandica	G5	\$2N				Ontario Breeding Bird Atlas
Bay-breasted Warbler	Setonhaga castanea	G5	\$5B				Ontario Breeding Bird Atlas
Belted Kingfisher	Meagceryle alcyon	G5	S5B S4N				Ontario Breeding Bird Atlas
Black Scoter	Melanitta americana	G5	54				Ontario Breeding Bird Atlas
Black Tern	Chlidonias niger	G4G5	S3B.S4M	SC	NAR		Ontario Breeding Bird Atlas
Black-and-white Warbler	Mniotilta varia	G5	S5B				Ontario Breeding Bird Atlas
Black-backed Woodpecker	Picoides arcticus	G5	S5				Ontario Breeding Bird Atlas
Black-billed Cuckoo	Coccyzus erythropthalmus	G5	S4S5B				Ontario Breeding Bird Atlas
Black-capped Chickadee	Poecile atricapillus	G5	S5				Ontario Breeding Bird Atlas
Black-throated Blue Warbler	Setophaga caerulescens	G5	S5B				Ontario Breeding Bird Atlas
Black-throated Green Warbler	Setophaga virens	G5	S5B				Ontario Breeding Bird Atlas
Blackburnian Warbler	Setophaga fusca	G5	S5B				Ontario Breeding Bird Atlas
Blue Jay	Cyanocitta cristata	G5	S5				Ontario Breeding Bird Atlas
Blue-headed Vireo	Vireo solitarius	G5	S5B				Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Bobolink	Dolichonyx oryzivorus	G5	S4B	THR	THR	THR	Information Centre
Bohemian Waxwing	Bombycilla garrulus	G5	S4B,S5N				Ontario Breeding Bird Atlas
Bonaparte's Gull	Chroicocephalus philadelphia	G5	S5				Ontario Breeding Bird Atlas

Birds							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Brant	Branta bernicla	G5	S4M				Ontario Breeding Bird Atlas
Broad-winged Hawk	Buteo platypterus	G5	S5B				Ontario Breeding Bird Atlas
Brown Creeper	Certhia americana	G5	S5				Ontario Breeding Bird Atlas
Brown Thrasher	Toxostoma rufum	G5	S4B				Ontario Breeding Bird Atlas
Brown-headed Cowbird	Molothrus ater	G5	S5				Ontario Breeding Bird Atlas
Bufflehead	Bucephala albeola	G5	S5				Ontario Breeding Bird Atlas
Canada Goose	Branta canadensis	G5	S5				Ontario Breeding Bird Atlas
Canada Jay	Perisoreus canadensis	G5	S5				Ontario Breeding Bird Atlas
Canada Warbler	Cardellina canadensis	G5	S5B	SC	SC	THR	Ontario Breeding Bird Atlas
Cape May Warbler	Setophaga tigrina	G5	S5B				Ontario Breeding Bird Atlas
Cedar Waxwing	Bombycilla cedrorum	G5	S5				Ontario Breeding Bird Atlas
Chestnut-sided Warbler	Setophaga pensylvanica	G5	S5B				Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas &
							Ontario Natural Heritage
Chimney Swift	Chaetura pelagica	G4G5	S3B	THR	THR	THR	Information Centre
Chipping Sparrow	Spizella passerina	G5	S5B,S3N				Ontario Breeding Bird Atlas
Cliff Swallow	Petrochelidon pyrrhonota	G5	S4S5B				Ontario Breeding Bird Atlas
Common Goldeneye	Bucephala clangula	G5	S5				Ontario Breeding Bird Atlas
Common Grackle	Quiscalus quiscula	G5	S5				Ontario Breeding Bird Atlas
Common Loon	Gavia immer	G5	S5	NAR	NAR		Ontario Breeding Bird Atlas
Common Merganser	Mergus merganser	G5	S5				Ontario Breeding Bird Atlas
Common Nighthawk	Chordeiles minor	G5	S4B	SC	SC	THR	Ontario Breeding Bird Atlas
Common Raven	Corvus corax	G5	S5				Ontario Breeding Bird Atlas
Common Redpoll	Acanthis flammea	G5	S5				Ontario Breeding Bird Atlas
Common Tern	Sterna hirundo	G5	S4B	NAR	NAR		Ontario Breeding Bird Atlas
Common Yellowthroat	Geothlypis trichas	G5	S5B,S3N				Ontario Breeding Bird Atlas
Cooper's Hawk	Accipiter cooperii	G5	S4	NAR	NAR		Ontario Breeding Bird Atlas
Dark-eyed Junco	Junco hyemalis	G5	S5				Ontario Breeding Bird Atlas
Eastern Bluebird	Sialia sialis	G5	S5B,S4N	NAR	NAR		Ontario Breeding Bird Atlas
Eastern Kingbird	Tyrannus tyrannus	G5	S4B				Ontario Breeding Bird Atlas

Birds									
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference		
							Ontario Breeding Bird Atlas &		
							Ontario Natural Heritage		
Eastern Meadowlark	Sturnella magna	G5	S4B,S3N	THR	THR	THR	Information Centre		
Eastern Phoebe	Sayornis phoebe	G5	S5B				Ontario Breeding Bird Atlas		
Eastern Towhee	Pipilo erythrophthalmus	G5	S4B,S3N				Ontario Breeding Bird Atlas		
Eastern Wood-Pewee	Contopus virens	G5	S4B	SC	SC	SC	Ontario Breeding Bird Atlas		
							Ontario Natural Heritage		
Eastern Whip-poor-will	Antrostomus vociferus	G5	S4B	THR	THR	THR	Information Centre		
European Starling	Sturnus vulgaris	G5	SNA				Ontario Breeding Bird Atlas		
Evening Grosbeak	Coccothraustes vespertinus	G5	S4	SC	SC	SC	Ontario Breeding Bird Atlas		
Field Sparrow	Spizella pusilla	G5	S4B,S3N				Ontario Breeding Bird Atlas		
Gadwall	Mareca strepera	G5	S4B,S4N,S5M				Ontario Breeding Bird Atlas		
Glaucous Gull	Larus hyperboreus	G5	S4N				Ontario Breeding Bird Atlas		
Golden-crowned Kinglet	Regulus satrapa	G5	S5				Ontario Breeding Bird Atlas		
Grasshopper Sparrow	Ammodramus savannarum	G5	S4B	SC	SC		Ontario Breeding Bird Atlas		
Gray Catbird	Dumetella carolinensis	G5	S5B,S3N				Ontario Breeding Bird Atlas		
Gray Partridge	Perdix perdix	G5	SNA				Ontario Breeding Bird Atlas		
Great Black-backed Gull	Larus marinus	G5	S1B,S4N				Ontario Breeding Bird Atlas		
Great Blue Heron	Ardea herodias	G5	S4				Ontario Breeding Bird Atlas		
Great Crested Flycatcher	Myiarchus crinitus	G5	S5B				Ontario Breeding Bird Atlas		
Great Gray Owl	Strix nebulosa	G5	S4	NAR	NAR		Ontario Breeding Bird Atlas		
Great Horned Owl	Bubo virginianus	G5	S4				Ontario Breeding Bird Atlas		
Greater Scaup	Aythya marila	G5	S4B,S4N,S5M				Ontario Breeding Bird Atlas		
Greater Yellowlegs	Tringa melanoleuca	G5	S4B,S5M				Ontario Breeding Bird Atlas		
Green Heron	Butorides virescens	G5	S4B				Ontario Breeding Bird Atlas		
Green-winged Teal	Anas crecca	G5	S4B,S4N,S5M				Ontario Breeding Bird Atlas		
Hermit Thrush	Catharus guttatus	G5	S5B,S4N				Ontario Breeding Bird Atlas		
Herring Gull	Larus argentatus	G5	S4B,S5N				Ontario Breeding Bird Atlas		
Hooded Merganser	Lophodytes cucullatus	G5	S5				Ontario Breeding Bird Atlas		
Horned Grebe	Podiceps auritus	G5	S1B,S3N,S4M	SC	SC		Ontario Breeding Bird Atlas		
Horned Lark	Eremophila alpestris	G5	S4				Ontario Breeding Bird Atlas		
House Sparrow	Passer domesticus	G5	SNA				Ontario Breeding Bird Atlas		

Birds							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
House Wren	Troglodytes aedon	G5	S5B				Ontario Breeding Bird Atlas
Indigo Bunting	Passerina cyanea	G5	S5B				Ontario Breeding Bird Atlas
Killdeer	Charadrius vociferus	G5	S4B				Ontario Breeding Bird Atlas
Lapland Longspur	Calcarius lapponicus	G5	S3B,S4N				Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas &
							Ontario Natural Heritage
Least Bittern	Ixobrychus exilis	G4G5	S4B	THR	THR	THR	Information Centre
Least Flycatcher	Empidonax minimus	G5	S5B				Ontario Breeding Bird Atlas
Lesser Scaup	Aythya affinis	G5	S4B,S4N,S5M				Ontario Breeding Bird Atlas
Little Gull	Hydrocoloeus minutus	G5	S1S2B,S3M				Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas &
							Ontario Natural Heritage
Loggerhead Shrike	Lanius Iudovicianus	G4	S1B	END	END		Information Centre
Long-tailed Duck	Clangula hyemalis	G5	S3B,S5N				Ontario Breeding Bird Atlas
Magnolia Warbler	Setophaga magnolia	G5	S5B				Ontario Breeding Bird Atlas
Mallard	Anas platyrhynchos	G5	S5				Ontario Breeding Bird Atlas
Marsh Wren	Cistothorus palustris	G5	S4B,S3N				Ontario Breeding Bird Atlas
Merlin	Falco columbarius	G5	S5	NAR	NAR		Ontario Breeding Bird Atlas
Mourning Dove	Zenaida macroura	G5	S5				Ontario Breeding Bird Atlas
Mourning Warbler	Geothlypis philadelphia	G5	S5B				Ontario Breeding Bird Atlas
Northern Cardinal	Cardinalis cardinalis	G5	S5				Ontario Breeding Bird Atlas
Northern Flicker	Colaptes auratus	G5	S5				Ontario Breeding Bird Atlas
Northern Goshawk	Accipiter gentilis	G5	S4	NAR	NAR		Ontario Breeding Bird Atlas
Northern Hawk Owl	Surnia ulula	G5	S4	NAR	NAR		Ontario Breeding Bird Atlas
Northern Mockingbird	Mimus polyglottos	G5	S4				Ontario Breeding Bird Atlas
Northern Pintail	Anas acuta	G5	S5B,S4N				Ontario Breeding Bird Atlas
Northern Rough-winged Swallow	Stelgidopteryx serripennis	G5	S4B				Ontario Breeding Bird Atlas
Northern Saw-whet Owl	Aegolius acadicus	G5	S5				Ontario Breeding Bird Atlas
Northern Shrike	Lanius borealis	G5	S4B,S5N				Ontario Breeding Bird Atlas
Northern Waterthrush	Parkesia noveboracensis	G5	S5B				Ontario Breeding Bird Atlas
Olive-sided Flycatcher	Contopus cooperi	G4	S4B	SC	SC	THR	Ontario Breeding Bird Atlas
Osprey	Pandion haliaetus	G5	S5B				Ontario Breeding Bird Atlas

Birds								
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference	
Ovenbird	Seiurus aurocapilla	G5	S5B				Ontario Breeding Bird Atlas	
Palm Warbler	Setophaga palmarum	G5	S5B				Ontario Breeding Bird Atlas	
Pectoral Sandpiper	Calidris melanotos	G5	S1B,S4M				Ontario Breeding Bird Atlas	
Peregrine Falcon	Falco peregrinus	G4	S4	SC	NAR		Ontario Breeding Bird Atlas	
Philadelphia Vireo	Vireo philadelphicus	G5	S5B				Ontario Breeding Bird Atlas	
Pied-billed Grebe	Podilymbus podiceps	G5	S4B,S2N				Ontario Breeding Bird Atlas	
Pileated Woodpecker	Dryocopus pileatus	G5	S5				Ontario Breeding Bird Atlas	
Pine Grosbeak	Pinicola enucleator	G5	S4B,S5N				Ontario Breeding Bird Atlas	
Pine Siskin	Spinus pinus	G5	S5				Ontario Breeding Bird Atlas	
Pine Warbler	Setophaga pinus	G5	S5B,S3N				Ontario Breeding Bird Atlas	
Pomarine Jaeger	Stercorarius pomarinus	G5	S3M				Ontario Breeding Bird Atlas	
Prairie Warbler	Setophaga discolor	G5	S2B	NAR	NAR		Ontario Breeding Bird Atlas	
Purple Finch	Haemorhous purpureus	G5	S5				Ontario Breeding Bird Atlas	
Purple Martin	Progne subis	G5	S3B				Ontario Breeding Bird Atlas	
Red Crossbill	Loxia curvirostra	G5	S5				Ontario Breeding Bird Atlas	
Red-breasted Merganser	Mergus serrator	G5	S5				Ontario Breeding Bird Atlas	
Red-breasted Nuthatch	Sitta canadensis	G5	S5				Ontario Breeding Bird Atlas	
Red-eyed Vireo	Vireo olivaceus	G5	S5B				Ontario Breeding Bird Atlas	
							Ontario Natural Heritage	
Red-headed Woodpecker	Melanerpes erythrocephalus	G5	S3	END	END	END	Information Centre	
Red-necked Grebe	Podiceps grisegena	G5	S3	NAR	NAR		Ontario Breeding Bird Atlas	
Red-shouldered Hawk	Buteo lineatus	G5	S4B,S2N	NAR	NAR		Ontario Breeding Bird Atlas	
Red-tailed Hawk	Buteo jamaicensis	G5	S5	NAR	NAR		Ontario Breeding Bird Atlas	
Red-throated Loon	Gavia stellata	G5	S2B,S4M				Ontario Breeding Bird Atlas	
Red-winged Blackbird	Agelaius phoeniceus	G5	S5				Ontario Breeding Bird Atlas	
Redhead	Aythya americana	G5	S2B,S4N				Ontario Breeding Bird Atlas	
Ring-billed Gull	Larus delawarensis	G5	S5				Ontario Breeding Bird Atlas	
Ring-necked Duck	Aythya collaris	G5	S5B,S4N				Ontario Breeding Bird Atlas	
Ring-necked Pheasant	Phasianus colchicus	G5	SNA				Ontario Breeding Bird Atlas	
Rock Pigeon	Columba livia	G5	SNA				Ontario Breeding Bird Atlas	
Rose-breasted Grosbeak	Pheucticus ludovicianus	G5	S5B				Ontario Breeding Bird Atlas	
Rough-legged Hawk	Buteo lagopus	G5	S1B,S4N	NAR	NAR		Ontario Breeding Bird Atlas	

Birds									
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference		
Ruby-throated Hummingbird	Archilochus colubris	G5	S5B				Ontario Breeding Bird Atlas		
Ruddy Duck	Oxyura jamaicensis	G5	S3B,S4N,S5M				Ontario Breeding Bird Atlas		
Ruffed Grouse	Bonasa umbellus	G5	S5				Ontario Breeding Bird Atlas		
Rusty Blackbird	Euphagus carolinus	G4	S4B,S3N	NAR	SC	SC	Ontario Breeding Bird Atlas		
Sabine's Gull	Xema sabini	G5	S1M				Ontario Breeding Bird Atlas		
Savannah Sparrow	Passerculus sandwichensis	G5	S5B,S3N				Ontario Breeding Bird Atlas		
Scarlet Tanager	Piranga olivacea	G5	S5B				Ontario Breeding Bird Atlas		
Sharp-shinned Hawk	Accipiter striatus	G5	S5	NAR	NAR		Ontario Breeding Bird Atlas		
Snow Bunting	Plectrophenax nivalis	G5	S4N				Ontario Breeding Bird Atlas		
Snow Goose	Anser caerulescens	G5	S5B				Ontario Breeding Bird Atlas		
Song Sparrow	Melospiza melodia	G5	S5				Ontario Breeding Bird Atlas		
Sora	Porzana carolina	G5	S5B				Ontario Breeding Bird Atlas		
Spotted Sandpiper	Actitis macularius	G5	S5B				Ontario Breeding Bird Atlas		
Surf Scoter	Melanitta perspicillata	G5	S4B,S5N				Ontario Breeding Bird Atlas		
Swainson's Thrush	Catharus ustulatus	G5	S5B				Ontario Breeding Bird Atlas		
Swamp Sparrow	Melospiza georgiana	G5	S5B,S4N				Ontario Breeding Bird Atlas		
Tree Swallow	Tachycineta bicolor	G5	S4S5B				Ontario Breeding Bird Atlas		
Turkey Vulture	Cathartes aura	G5	S5B,S3N				Ontario Breeding Bird Atlas		
Upland Sandpiper	Bartramia longicauda	G5	S2B				Ontario Breeding Bird Atlas		
Veery	Catharus fuscescens	G5	S5B				Ontario Breeding Bird Atlas		
Vesper Sparrow	Pooecetes gramineus	G5	S4B				Ontario Breeding Bird Atlas		
Virginia Rail	Rallus limicola	G5	S4S5B				Ontario Breeding Bird Atlas		
Warbling Vireo	Vireo gilvus	G5	S5B				Ontario Breeding Bird Atlas		
Western Meadowlark	Sturnella neglecta	G5	S1B				Ontario Breeding Bird Atlas		
White-breasted Nuthatch	Sitta carolinensis	G5	S5				Ontario Breeding Bird Atlas		
White-crowned Sparrow	Zonotrichia leucophrys	G5	S5B,S3N				Ontario Breeding Bird Atlas		
White-throated Sparrow	Zonotrichia albicollis	G5	S5				Ontario Breeding Bird Atlas		
White-winged Crossbill	Loxia leucoptera	G5	S5				Ontario Breeding Bird Atlas		
White-winged Scoter	Melanitta deglandi	G5	S4B,S5N				Ontario Breeding Bird Atlas		
Wild Turkey	Meleagris gallopavo	G5	S5				Ontario Breeding Bird Atlas		
Willow Flycatcher	Empidonax traillii	G5	S4B				Ontario Breeding Bird Atlas		
Wilson's Snipe	Gallinago delicata	G5	S5B				Ontario Breeding Bird Atlas		

Birds							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Wood Duck	Aix sponsa	G5	S5B,S3N				Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas &
							Ontario Natural Heritage
Wood Thrush	Hylocichla mustelina	G4	S4B	SC	THR	THR	Information Centre
Yellow Warbler	Setophaga petechia	G5	S5B				Ontario Breeding Bird Atlas
Yellow-bellied Flycatcher	Empidonax flaviventris	G5	S5B				Ontario Breeding Bird Atlas
Yellow-bellied Sapsucker	Sphyrapicus varius	G5	S5B,S3N				Ontario Breeding Bird Atlas
Yellow-billed Cuckoo	Coccyzus americanus	G5	S4B				Ontario Breeding Bird Atlas
Yellow-rumped Warbler	Setophaga coronata	G5	S5B,S4N				Ontario Breeding Bird Atlas
Yellow-throated Vireo	Vireo flavifrons	G5	S4B				Ontario Breeding Bird Atlas

#### TABLE 4: INSECT SPECIES LIST

Insects							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Acadian Hairstreak	Satyrium acadica	G5	S4				Ontario Butterfly Atlas
American Lady	Vanessa virginiensis	G5	S5				Ontario Butterfly Atlas
Aphrodite Fritillary	Speyeria aphrodite	G5	S5				Ontario Butterfly Atlas
Arctic Skipper	Carterocephalus palaemon	G5	S5				Ontario Butterfly Atlas
Atlantis Fritillary	Speyeria atlantis	G5	S5				Ontario Butterfly Atlas
Baltimore Checkerspot	Euphydryas phaeton	G4	S4				Ontario Butterfly Atlas
Banded Hairstreak	Satyrium calanus	G5	S4				Ontario Butterfly Atlas
Black Swallowtail	Papilio polyxenes	G5	S5				Ontario Butterfly Atlas
Bronze Copper	Lycaena hyllus	G5	S5				Ontario Butterfly Atlas
Cabbage White	Pieris rapae	G5	SNA				Ontario Butterfly Atlas
Canadian Tiger Swallowtail	Papilio canadensis	G5	S5				Ontario Butterfly Atlas
Clouded Sulphur	Colias philodice	G5	S5				Ontario Butterfly Atlas
Columbine Duskywing	Erynnis lucilius	G3	S4				Ontario Butterfly Atlas
Common Buckeye	Junonia coenia	G5	SNA				Ontario Butterfly Atlas
Common Ringlet	Coenonympha tullia	NA	NA				Ontario Butterfly Atlas
Common Roadside Skipper	Amblyscirtes vialis	G5	S4				Ontario Butterfly Atlas
Common Wood-Nymph	Cercyonis pegala	G5	S5				Ontario Butterfly Atlas

Insects										
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference			
Compton Tortoiseshell	Nymphalis I-album	G5	S5				Ontario Butterfly Atlas			
Coral Hairstreak	Satyrium titus	G5	S5				Ontario Butterfly Atlas			
Crossline Skipper	Polites origenes	G5?	S4				Ontario Butterfly Atlas			
Delaware Skipper	Anatrytone logan	G5	S4				Ontario Butterfly Atlas			
Dion Skipper	Euphyes dion	G5	S4				Ontario Butterfly Atlas			
Dun Skipper	Euphyes vestris	G5	S5				Ontario Butterfly Atlas			
Eastern Comma	Polygonia comma	G5	S5				Ontario Butterfly Atlas			
Eastern Giant Swallowtail	Papilio cresphontes	NA	NA				Ontario Butterfly Atlas			
Eastern Pine Elfin	Callophrys niphon	G5	S5				Ontario Butterfly Atlas			
Eastern Tailed Blue	Cupido comyntas	G5	S5				Ontario Butterfly Atlas			
European Skipper	Thymelicus lineola	G5	SNA				Ontario Butterfly Atlas			
Eyed Brown	Lethe eurydice	G5	S5				Ontario Butterfly Atlas			
Gray Comma	Polygonia progne	G5	S5				Ontario Butterfly Atlas			
Great Spangled Fritillary	Speyeria cybele	G5	S5				Ontario Butterfly Atlas			
Green Comma	Polygonia faunus	G5	S4				Ontario Butterfly Atlas			
Harvester	Feniseca tarquinius	G5	S4				Ontario Butterfly Atlas			
Henry's Elfin	Callophrys henrici	G5	S4				Ontario Butterfly Atlas			
Hobomok Skipper	Poanes hobomok	G5	S5				Ontario Butterfly Atlas			
Indian Skipper	Hesperia sassacus	G5	S4				Ontario Butterfly Atlas			
Juvenal's Duskywing	Erynnis juvenalis	G5	S5				Ontario Butterfly Atlas			
Little Wood-Satyr	Megisto cymela	G5	S5				Ontario Butterfly Atlas			
Long Dash Skipper	Polites mystic	G5	S5				Ontario Butterfly Atlas			
Meadow Fritillary	Boloria bellona	G5	S5				Ontario Butterfly Atlas			
Midsummer Tiger Swallowtail	Papilio canadensis x glaucus	NA	NA				Ontario Butterfly Atlas			
Monarch	Danaus plexippus	G4	S2N,S4B	SC	END	SC	Ontario Butterfly Atlas			
Mourning Cloak	Nymphalis antiopa	G5	S5				Ontario Butterfly Atlas			
Mustard White	Pieris oleracea	G5	S4				Ontario Butterfly Atlas			
Northern Azure	Celastrina lucia	G5	S5				Ontario Butterfly Atlas			
Northern Broken-Dash	Wallengrenia egeremet	G5	S5				Ontario Butterfly Atlas			
Northern Cloudywing	Thorybes pylades	G5	S5				Ontario Butterfly Atlas			
Northern Crescent	Phyciodes cocyta	G5	S5				Ontario Butterfly Atlas			
Northern Pearly-Eye	Lethe anthedon	G5	S5				Ontario Butterfly Atlas			
Insects										
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Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference			
Olympia Marble	Euchloe olympia	G5	S4				Ontario Butterfly Atlas			
Orange Sulphur	Colias eurytheme	G5	S5				Ontario Butterfly Atlas			
Painted Lady	Vanessa cardui	G5	S5B				Ontario Butterfly Atlas			
Pearl Crescent	Phyciodes tharos	G5	S4				Ontario Butterfly Atlas			
Peck's Skipper	Polites peckius	G5	S5				Ontario Butterfly Atlas			
Question Mark	Polygonia interrogationis	G5	S5				Ontario Butterfly Atlas			
Red Admiral	Vanessa atalanta	G5	S5B				Ontario Butterfly Atlas			
Silver-spotted Skipper	Epargyreus clarus	G5	S4				Ontario Butterfly Atlas			
Silvery Blue	Glaucopsyche lygdamus	G5	S5				Ontario Butterfly Atlas			
Striped Hairstreak	Satyrium liparops	G5	S5				Ontario Butterfly Atlas			
Tawny-edged Skipper	Polites themistocles	G5	S5				Ontario Butterfly Atlas			
Two-spotted Skipper	Euphyes bimacula	G4	S4				Ontario Butterfly Atlas			

#### TABLE 5: REPTILE SPECIES LIST

Reptiles							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
							Ontario Reptile and Amphibian Atlas & Ontario
Blanding's Turtle	Emydoidea blandingii	G4	S3	THR	END		Natural Heritage Information Centre
Eastern Gartersnake	Thamnophis sirtalis sirtalis	G5T5	S5				Ontario Reptile and Amphibian Atlas
							Ontario Reptile and Amphibian Atlas & Ontario
Eastern Milksnake	Lampropeltis triangulum	G5	S4	NAR	SC	SC	Natural Heritage Information Centre
							Ontario Reptile and Amphibian Atlas & Ontario
Midland Painted Turtle	Chrysemys picta marginata	G5T5	S4		SC	SC	Natural Heritage Information Centre
Northern Map Turtle	Graptemys geographica	G5	S3	SC	SC	SC	Ontario Reptile and Amphibian Atlas
Northern Watersnake	Nerodia sipedon sipedon	G5T5	S5	NAR	NAR		Ontario Reptile and Amphibian Atlas
Smooth Greensnake	Opheodrys vernalis	G5	S4				Ontario Reptile and Amphibian Atlas
							Ontario Reptile and Amphibian Atlas & Ontario
Snapping Turtle	Chelydra serpentina	G5	S4	SC	SC	SC	Natural Heritage Information Centre

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#### TABLE 6: VASCULAR PLANT SPECIES LIST

Vascular Plants							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Black Ash	Fraxinus nigra	G5	S4	END	THR		Ontario Natural Heritage Information Centre
Butternut	Juglans cinerea	G3	S2?	END	END	END	Ontario Natural Heritage Information Centre

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## Appendix C – Species at Risk

TABLE 7: BIRD SPECIES AT RISK

Birds							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Bank Swallow	Riparia riparia	G5	S4B	THR	THR	THR	Information Centre
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Barn Swallow	Hirundo rustica	G5	S4B	SC	SC	THR	Information Centre
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Bobolink	Dolichonyx oryzivorus	G5	S4B	THR	THR	THR	Information Centre
Canada Warbler	Cardellina canadensis	G5	S5B	SC	SC	THR	Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Chimney Swift	Chaetura pelagica	G4G5	S3B	THR	THR	THR	Information Centre
Common Nighthawk	Chordeiles minor	G5	S4B	SC	SC	THR	Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Eastern Meadowlark	Sturnella magna	G5	S4B,S3N	THR	THR	THR	Information Centre
Eastern Whip-poor-							Ontario Natural Heritage Information Centre
will	Antrostomus vociferus	G5	S4B	THR	THR	THR	
Eastern Wood-Pewee	Contopus virens	G5	S4B	SC	SC	SC	Ontario Breeding Bird Atlas
	Coccothraustes						
Evening Grosbeak	vespertinus	G5	S4	SC	SC	SC	Ontario Breeding Bird Atlas
	Ammodramus						
Grasshopper Sparrow	savannarum	G5	S4B	SC	SC		Ontario Breeding Bird Atlas
Horned Grebe	Podiceps auritus	G5	S1B,S3N,S4M	SC	SC		Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Least Bittern	Ixobrychus exilis	G4G5	S4B	THR	THR	THR	Information Centre
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Loggerhead Shrike	Lanius ludovicianus	G4	S1B	END	END		Information Centre
Olive-sided Flycatcher	Contopus cooperi	G4	S4B	SC	SC	THR	Ontario Breeding Bird Atlas

Birds							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Red-headed	Melanerpes						Ontario Natural Heritage Information Centre
Woodpecker	erythrocephalus	G5	S3	END	END	END	
Rusty Blackbird	Euphagus carolinus	G4	S4B,S3N	NAR	SC	SC	Ontario Breeding Bird Atlas
							Ontario Breeding Bird Atlas & Ontario Natural Heritage
Wood Thrush	Hylocichla mustelina	G4	S4B	SC	THR	THR	Information Centre

TABLE 8: INSECT SPECIES AT RISK

Insects							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Monarch							Ontario Butterfly
	Danaus plexippus	G4	S2N,S4B	SC	END	SC	Atlas

TABLE 9: REPTILE SPECIES AT RISK

Reptiles							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
							Ontario Reptile and
							Amphibian Atlas &
							Ontario Natural
	Emydoidea						Heritage Information
Blanding's Turtle	blandingii	G4	S3	THR	END	NA	Centre
							Ontario Reptile and
							Amphibian Atlas &
							Ontario Natural
	Lampropeltis						Heritage Information
Eastern Milksnake	triangulum	G5	S4	NAR	SC	SC	Centre
							Ontario Reptile and
							Amphibian Atlas &
							Ontario Natural
Midland Painted	Chrysemys picta						Heritage Information
Turtle	marginata	G5T5	S4		SC	SC	Centre

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Northern Map Turtle	Graptemys geographica	65	53	SC	SC	SC	Ontario Reptile and Amphibian Atlas
	geog.apea						Ontario Bantila and
							Ontario Repute and
							Amphibian Atlas &
							Ontario Natural
	Chelydra						Heritage Information
Snapping Turtle	serpentina	G5	S4	SC	SC	SC	Centre

TABLE 10: VASCULAR PLANT SPECIES AT RISK

Taxa							
Common Name	Scientific Name	GRank	SRank	SARO	COSEWIC	SARA	Reference
Black Ash	Fraxinus nigra	G5	S4	END	THR		Ontario Natural Heritage Information Centre
Butternut	Juglans cinerea	G3	S2?	END	END	END	Ontario Natural Heritage Information Centre

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Appendix D– Draft Technical Memo from September 6<sup>th</sup>, 2023, Site Visit

# [DRAFT – V.1] Technical Field Memorandum

Enbridge Eganville Community Expansion

Date:	September 11 <sup>th</sup> , 2023.	Project No.: 23-127					
Project Name:	Eganville Community Expansion						
Client Name:	Algonquins of Pikwàkanagàn First Nation						
Submitted To:	Melanie Green, Senior Advisor, Community and Indigenous Engagement						
Submitted By:	Gary Pritchard, CEO, Senior Ecologist, and Jeffrey Driscoll, Terrestrial Ecologis						

#### Dear Melanie Green,

On September 6<sup>th</sup>, 2023, 4 Directions of Conservation Consulting Services (4 Directions) joined the site visit led by Enbridge regarding the Eganville Community Expansion Project., which was conducted to support the technical review of Stantec's Environmental Report (2023) for the Algonquins of Pikwakanagan First Nation (AOPFN). We are pleased to provide you with the following technical field memorandum, which compiles generalized notes regarding the land base and ecology around the proposed project sites.

This field memorandum has been separated into three main sections:

- Background Context
- Site Observations
- Concerns from the Site Visit



## 1.0 Background Context

A site visit was conducted on Wednesday, September 6<sup>th</sup>, 2023, by two ecologists from 4 Directions, one consultation staff member and two community members from the Algonquins of Pikwakanagan First Nation (AOPFN), and a staff member from Enbridge at the Eganville Community Expansion project area (see Appendix 1, Figure 1), located in Eganville, ON. The site visit occurred from 09:39 – 14:33, covering 54 km<sup>2</sup>. The weather conditions during the site visit include an ambient temperature of 26°C, wind speed of 8km/h SE, the sky was clear, and there was no precipitation.

The purpose of this site visit was to conduct a general site walk through the Eganville Community Expansion project area to obtain relevant site information to include in the review of Stantec's environmental study report (2023), which outlines various mitigation and protections measures for the construction and operation of the Enbridge project.

The field visit encompassed 8 stops, each focusing on the examination of the natural features found along Enbridge's proposed installation of 21km of natural gas pipeline, which included Enbridge's preferred route for the expansion and the identified alternative routes (See Appendix 1, Figure 2). AOPFN and 4 Directions have concerns with the Stantec's recommended preferred route, as it presents to have more potential to harm the environment and AOPFN Rights. Subsequent sections of this field memo will detail these concerns; however, 4 Directions and the AOPFN strongly recommend an opportunity for more dialogue with Enbridge regarding the current recommended preferred route for the pipeline extension.



#### 2.0 Site Observations

### 2.1 Ecoregions and Vegetation Communities

The project's footprint is within Ecoregion 5E, the Georgian Bay Ecoregion, within the larger Ontario Shield Ecozone. The project boundaries occur in urbanized environments, natural areas, and agricultural lands. Within this Ecoregion, bedrock formations include predominantly migmatitic gneisses and felsic igneous rocks and is covered with ground moraine of variable depth. The topography of the Study Area varies greatly from weakly broken to strongly broken, and several upland areas including the Algonquin Dome, the Haliburton Highlands, and the Madawaska Highlands. Within the larger Georgian Bay Ecoregion, substrates include Humo-ferric Podzols (59%), acidic bedrock (26%), Mesisols (6%), and Melanic Brunisols (4%).

Most of the ecoregion (67.6%) exists as woodland, comprised of mixed forest (32%), deciduous forest (22.2%), coniferous forest (12.1%), and sparse forest (11.3%). Water and lands classified as pasture comprise 11% and 3% of the region. The Georgian Bay Ecoregion occupies the southern section of the Precambrian Shield, located in south-central Ontario. It stretches from the southeastern shores of Lake Superior in the west to the central part of the Ottawa River valley and the eastern border with Quebec. Located within the Great Lakes Watershed, this ecoregion is generally well-drained.

#### 2.2 Incidental Wildlife Observations on Site

Wildlife on-site includes two unique species of birds, one unique insect species, one unique mammalian species, and one unique vascular plant species (see Appendix 2, Table 1). Bird species observed included Eastern Meadowlark (*Sturnella magna*), American Kestrel (*Falco sparverius*). The only insect species observed included adult Monarch (*Danaus plexippus*) butterflies and the presence of Common Milkweed (*Asclepias syriaca*), which is a vascular plant that is critical for the life history of the Monarch insect species. The single mammalian species was an American Beaver (*Castor canadensis*), which was recorded indirectly through the identification of the presence of dam habitat. Wildlife observations were recorded by biologists from 4 Directions and AOPFN representatives during the site visit on September 6th, 2023. It is important to note that due to the scope of this site visit, wildlife observations were incidental, and no species-specific inventories were conducted.



## 3.0 Concerns from the Site Visit

#### 3.1 Timber End-use & AOPFN Harvesting Areas

Forests, to Indigenous peoples, provide more than just timber, it provides a place to reflect, a source of medicines and food, and much more. In turn, the Algonquin people have been striving to revitalize their role in maintaining a healthy relationship within these ecosystems. With this in mind, the "Algonquin Nation Law," conceived in 1992, was formulated to guarantee the sustainable coexistence of wildlife and plant species while upholding conservation and safety standards (AOPFN, 2023). Furthermore, it is important that Enbridge and other proponents understand that traditional activities such as harvesting of wildlife, fish, migratory birds and plants, are recognized by the *Constitution Act*, 1982, and are upheld by the Supreme Court of Canada.

4 Directions recommends that Enbridge provide AOPFN community members with the opportunity to collect wood products from the areas requiring vegetation clearing. This would facilitate compensation to Indigenous Rights holders for the impact of the project on culturally significant species.

On September 7<sup>th</sup>, 4 Directions met with members of AOPFN to debrief following the September 6<sup>th</sup> site visit. During these discussions, community members identified harvesting areas that overlap with the project area, specifically along Enbridge's preferred route for the pipeline extension (see Appendix 1, Figure 1). Since time immemorial, the Algonquin people have relied on the gathering of plants and animals for sustenance and commerce. These traditions reflect a deep reverence for nature and an enduring dedication to responsibly overseeing natural resources, preserving this legacy for future Algonquin generations (Algonquins of Ontario, 2023).

Enbridge must work with AOPFN to ensure community members are able to continue accessing significant harvesting areas that overlap with the project area and to work with them to develop plans to mitigate negative impacts to these areas. Due to a legacy of appropriation, abuse, and misuse of data collected by and from Indigenous peoples, it's important that all knowledge shared by AOPFN for the Eganville Community Expansion project should be maintained under OCAP principals (FNIGC, 2023).



#### 3.2 Vegetation Clearing & Breeding Birds

During the September 6<sup>th</sup> site visit, 4 Directions biologists and AOPFN members observed evidence of road mortality for an Eastern Meadowlark along Mcgaghran Rd, near Snake River (see Appendix 1, Figure 2; Appendix 3, Site Photo 3). It's imperative that Enbridge minimizes the impacts of vegetation clearing and other active construction activities on bird populations, as per the Migratory Bird Convention Act, 1994; therefore, vegetation removal should not take place during the established core local breeding bird season, which extends from April 1 – August 31 in the local area (as per Environment and Climate Change Canada Guidelines, 2023).

#### 3.3 Butternut

During the desktop review, 4 Directions biologists identified Butternut (*Juglans cinerea*) records from the Ontario Natural Heritage Information Centre (NHIC) and observed potential habitat along both the preferred and alternative routes for the proposed pipeline extension project. 4 Directions agrees with Stantec's recommendation to conduct a survey within the project area to confirm the presence of Butternut trees within 25m of the temporary workspace and potential excavation area (Stantec, 2023).

If butternut trees are confirmed within the project area, a Butternut Health Assessment is recommended to determine the potential presence of the fungal pathogen known as Butternut Canker (*Ophiognomonia clavigignenti-juglandacearum*) and to assign a specific category to the tree based on the methods outlined by the Ontario Government (2021) and FGCA (2015). This classification is particularly pertinent, as the tree could potentially be archived through seed collection. In addition, 4 Directions strongly recommends performing a collection of leaf samples from the Butternut tree for eDNA analysis. If there is are seed-bearing butternut present on site, or butternut which are suspected to produce seeds in the future, there is an opportunity for First Nation communities to harvest butternut seeds or samplings. The collection of baseline information on genetics and hybridity testing will be invaluable for supporting the Ontario's Butternut recovery strategy (Environment Canada, 2010). One of the key research priorities for the species is furthering our understanding of its genetic diversity and the potential for resistance to Butternut Canker (Environment Canada, 2010). There is an urgency to further our understanding of Butternut genetic conservation and its application to restoration approaches, as eventually there will be a genetic bottleneck due to canker-related mortality and consumption of seeds by granivores (Pike et al., 2021). AOPFN Rights must inform these conservation and restoration

approaches.



#### 3.4 Wetlands & Watercourses

Within the project area, 4 Directions biologists identified the following evaluated wetlands and cold/cool water features to overlap with Enbridge's preferred route for the pipeline expansion project in Eganville: Mink Lake, Cold Water Creek Wetland, Snake River Wetland (Provincially Significant), Mink Creek, and Snake River.

Indigenous communities have a special and sacred relationship with water. Water represents the interconnectedness with all life and is a gift from the Creator. Many traditional activities depend on water, and access to water connects these activities to surrounding ecosystems. Water is respected through ceremony and practice. It is understood that water cannot be owned or possessed for sale or other obstructive uses, but that Water is to be shared and protected.

Appropriate environmental buffers for wetlands and watercourses should be negotiated with the Rights Holders and the ones who grant harm or destruction to the Rights under Section 35 of the Canadian Constitution. The project area overlaps with the traditional, unceded, unsurrendered territory of the Algonquins of Pikwakanagàn First Nation. While there are no historic treaties signed between the Crown and the Algonquins, 4 Directions would argue that similar to the Williams Treaty (2018) and the 2008 Water Declaration for the Michi Saagiig Peoples, all wetlands are significant and are to be afforded protections regardless of the provincial designation. In the Eganville project site visit debrief meeting on September 7<sup>th</sup>, between 4 Directions and AOPFN, community members identified that they were in agreeance for 120m buffers being applied to all wetland features, regardless of their provincial designation, which mirrors what is formally outlined in the Michi Saagiig's Williams Treaty. Such buffers reduce potential negative impacts to overlapping or adjacent wetlands and watercourses. The establishment of the buffer should include the installation of fencing to visually mark the extent of the project work area for onsite staff. On-site inspection should be undertaken to confirm the implementation of the mitigation measures to identify corrective actions, if required.

#### 3.4.1 Erosion and Sediment Control

During the lifespan of the Enbridge Eganville Community Expansion project, change is inherent to the landscape and can include removing vegetation, stripping topsoil, and alterations to topography and drainage patterns. A wide range of adverse impacts can occur by releasing sediment-laden runoff and dust from construction sites. As stated in the Toronto and Region Conservation Authority's Erosion and Sediment Control Guide (2019), these impacts can include:



- Excessive amounts of deposited and suspended sediment reduce the productive capacity of aquatic environments and increase the regularity of dredging in lakes, rivers, and wetlands reservoirs.
- Deposited sediment interferes with spawning and changes the habitat of bottom-dwelling organisms and juvenile fish in gravel stream beds.
- In natural water features, high amounts of suspended sediments can abrade gills, reduce visibility needed for mating and feeding, and reduce sunlight penetration, which thwarts photosynthesis in algae and aquatic plants.
- Heavy metals and nutrients, which have a tendency to bond to these particles, are just two additional contaminants that sediment can introduce into receiving waters.
- Tracking of sediment by vehicles off-site leads to roads that are heavily loaded with sediment, increased loads of sediment in the storm sewer system, and eventually increased loads of sediment in receiving waters.
- Wind-blown dust from building sites can damage the air quality and settle on nearby areas, such as roads, homes, and other private property.

As such, it is important for Enbridge staff and their contractors to conduct careful planning and oversight to minimize these changes and mitigate their impacts on adjacent and downstream natural features and on other private property; knock-on benefits from effective siltation fencing also include protection of wildlife (e.g., acting as wildlife fencing). The following table (Table 1) outlines best practice measures to control soil erosion concerns to protect any nearby wildlife, natural heritage features, stormwater management, drainage features and/or local receiving waterways within the Enbridge Eganville Community Expansion project area.

TABLE 1. SUMMARY OF MITIGATION AND MONITORING MEASURES FOR EROSION AND SEDIMENT CONTROL FOR SITES LOCATED WITHIN ENBRIDGE'S EGANVILLE COMMUNITY EXPANSION PROJECT AREA.

Environmental Component	Potential Impacts	Western Science Mitigation Measure(s)	Mon
Vegetation communities – erosion and sediment control	Increased erosion and sedimentation	Construction fencing and/or silt fencing, when appropriate, should be installed and maintained to clearly define the	On-s impl
		construction footprint and prevent accidental damage or intrusion to adjacent vegetation or ELC communities.	All e
		Stockpiled materials or equipment should be stored within the construction footprint, but shall be kept 120m away from any watercourse, signs should be put up on site to indicate the setback.	repa actic activ
Aquatic Environment – wetlands and waterbodies (In- water)	Increased erosion and sedimentation	<ul> <li>Horizontal Directional Drilling</li> <li>Sediment / Turbidity Curtains</li> <li>Temporary Stream Crossings via Temporary bridge or Culvert(s)</li> <li>Waterproof isolation barriers (e.g., cofferdams)</li> <li>Diversion / bypass channel</li> <li>Flume bypass</li> <li>Bypass pumping</li> <li>Dewatering</li> </ul>	On-s impl actic All e wee repa actic activ Ong

#### nitoring Activities

site inspection should be undertaken to confirm the lementation of the mitigation measures and identify corrective ons, if required.

erosion and sediment control measures should be inspected ekly. All damaged erosion and sediment control measures should be aired and/or replaced within 48 hours of the inspection. Corrective ons may include additional site maintenance and alteration of vities to reduce impacts.

site inspection should be undertaken to confirm the lementation of the mitigation measures and identify corrective ons, if required.

erosion and sediment control measures should be inspected ekly. All damaged erosion and sediment control measures should be aired and/or replaced within 48 hours of the inspection. Corrective ons may include additional site maintenance and alteration of vities to reduce impacts.

oing monitoring is required to inspect turbidity.

#### 3.5 Mitigating Right of Way (ROW) Impacts on Reptiles and Amphibians

During the desktop review, 4 Directions biologists identified 14 amphibian species and 8 reptile species records from the Ontario Natural Heritage Information Centre (NHIC) and the Ontario Reptile & Amphibian Atlas (2020) and observed evidence of species presence (see Appendix 2 and 3) and potential habitat along both the preferred and alternative routes for the proposed pipeline extension project. As such, there are concerns for road mortality due to increased activity of the roads where Enbridge has identified the preferred and alternative routes for the 21km pipeline extension.

Rytwinski and Fahrig (2012) conducted a meta-analysis using information from 75 studies that evaluated the relationship between roads or traffic and population size and found that amphibians and reptiles were the species groups most adversely impacted. Roads pose many dangers to amphibian and reptile populations in Ontario, including habitat loss, degradation, fragmentation, and direct animal mortality (see OMNRF, 2016 for examples).

While there is no singular solution for mitigating road effects on amphibians and reptiles, in 2016, the Ontario Ministry of Natural Resources and Forestry published best management practices to guide designing, implementing and monitoring mitigation measures to restore connectivity and reduce road mortality. The following tables (Tables 2 & 3) outline best practice measures to consider, and Enbridge staff and contractors are utilizing roads for access and constructing within the ROW.



TABLE 2. SUMMARY OF FENCE MATERIALS THAT HAVE BEEN USED FOR LONG-TERM PROJECTS TO EXCLUDE AMPHIBIANS AND REPTILES FROM THE ROAD AND /OR GUIDE ANIMALS TO TUNNELS. FOR ADDITIONAL FENCING SPECIFICATIONS, REFER TO OMNR 2013 AND OMNRF 2016.

	Depetite	Drawbacks
Hardware mesh cloth	Relatively durable; relatively low maintenance; allows	Susceptible to rust in seasonally wet areas unless heavy
	drainage; available in rolls.	gauge wire used.
Chain link fence	Very durable; low maintenance; allows drainage; available in rolls.	Mesh size typically larger than species specifications.
Concrete, corrugated steel, aluminum sheeting, or vinyl walls	Very durable; low maintenance; vertical smooth surfaces prevent climbing.	Inhibits drainage and may cause pooling.
Prefabricated plastic sheeting fence	Very durable designs available, e.g., ACO fencing, available in 1 metre sections OR Animex fencing, available in rolls depending on thickness.	Inhibits drainage and may cause pooling.

Note. Adapted from Best Management Practices for Mitigating the Effects of Roads on Amphibians and Reptile Species at Risk in Ontario, by OMNRF, 2016, p. 37.

TABLE 3. FENCE DESIGN SPECIFICATIONS FOR SAR REPTILE AND AMPHIBIAN SPECIES ARE BASED ON OMNR 2013, WOLTZ ET AL. 2008 AND EXPERT ADVICE.

		Fencing
Taxonomic Group	Species	Fence/wall Material
Salamanders, Frogs, Toads	Jefferson Salamander	Hardware cloth with 1/4 " mesh
		or smaller, concrete, aluminum, prefabricated plastic fence, or vinyl wall.
		• Salamanders are generally poor climbers (T. Bain pers. comm.) so a small mesh fence will work and also allow some c
	Fowler's Toad	<ul> <li>Solid, permanent material (e.g., cement, plastic panels), or hardware cloth with 1/4" mesh or smaller.</li> </ul>
		• Avoid using netted fencing because they can climb (Smith and Noss 2011).
Lizards	Five-Lined Skink	<ul> <li>Aluminum flashing; skinks can easily climb most other fencing materials.</li> </ul>

## **Considerations** Use 1/4" or smaller gauge to reduce the risk of small snakes getting stuck; requires attachment to post at regular intervals to avoid collapse. Use buried hardware cloth with recommended mesh at the base of the fence to provide multi-species use for large and small animals; lip extension may increase effectiveness for some species. Aluminum sheeting and vinyl walls are less durable than concrete;

corrugated steel can be obtained from corrugated steel pipes cut in half and are curved providing lip extension.

Back-fill at road-side of fence to provide escape route for animals; fencing best suited for flat dirt terrain such as in drainage ditch; 1 m sections may not be suitable for long fences greater than 1 km.

	Minimum Height (above ground)
rainage.	30 cm
	50 cm
	50 cm

		Fencing
Taxonomic Group	Species	Fence/wall Material
Snakes	Eastern Foxsnake, Gray Ratsnake	Concrete, aluminum, or vinyl wall.
	Blue Racer, Milksnake	• Hardware cloth (1/4" mesh or smaller), concrete, aluminum or vinyl walls.
	All other snake species	<ul> <li>Hardware cloth (1/4" mesh or smaller), concrete, aluminum or vinyl walls.</li> </ul>
Turtles	All species	<ul> <li>Hardware cloth, chain link fence (1/2" mesh or smaller), concrete, aluminum, vinyl wall, or prefabricated plastic wildlife fence</li> <li>Combining chain link and hardware cloth will be effective for adults, juveniles, and hatchlings.</li> <li>When fencing is used for both turtles and snakes, mesh size larger than 1/4" is discouraged as snakes can become entrapped.</li> </ul>

Note. Adapted from Best Management Practices for Mitigating the Effects of Roads on Amphibians and Reptile Species at Risk in Ontario, by OMNRF, 2016, p. 41.

Minimum Height (above ground)
(uoore ground)
200 cm
100 cm
60 cm
60 cm

#### 3.6 Deer Wintering Areas

The desktop assessment conducted by 4 Directions biologists, identified the presence of White-tailed Deer Wintering Area (Stratum II), overlapping with Enbridge's preferred route for the pipeline expansion and adjacent to alternative routes 2 & 3 (see Appendix 1, Figure 1). Deer are recognized as a culturally significant species for AOPFN (AOPFN, 2023) and, as such, are afforded protections under AOPFN's Aboriginal Rights.

Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to winter snow and cold onset. This is a behavioural response, and deer will establish traditional use areas. The yard is composed of two areas referred to as Stratum I and Stratum II. Stratum II covers the entire winter yard area and is usually a mixed or deciduous forest with plenty of browse available for food. Agricultural lands can also be included in this area. Deer move to these areas in early winter, and generally, when snow depths reach 20 cm, most of the deer will have moved here. If the snow is light and fluffy, deer may continue to use this area until 30 cm snow depth. In mild winters, deer may remain in the Stratum II area the entire winter.

The Core of a deer yard (Stratum I) is located within the Stratum II area and is critical for deer survival in areas with severe winters. It is primarily composed of coniferous trees (pine, hemlock, cedar, spruce) with a canopy cover of more than 60%. Ontario Ministry of Natural Resources and Forestry (OMNRF) determines deer yards following methods outlined in "Selected Wildlife and Habitat Features: Inventory Manual" (2014).

The following table (Table 4) outlines the main potential development effects and mitigation options for the Whitetailed Deer Wintering Area (Stratum II) that should be followed during the lifecycle of the Eganville Community Expansion project. It is important to note that the OMNRF's manual does not outline specific impacts relating to pipeline projects; therefore, the road development category was used for approximated threats and mitigations information. TABLE 4. DESCRIPTION OF THE POTENTIAL IMPACTS AND ASSOCIATED MITIGATION MEASURES FOR THE WHITE-TAILED DEER WINTERING AREA (STRATUM II) THAT HAVE BEEN IDENTIFIED TO OVERLAP WITH THE PREFERRED AND ALTERNATIVE PIPELINE ROUTES PROPOSED BY ENBRIDGE FOR THE EGANVILLE COMMUNITY EXPANSION PROJECT.

Environmental Component	Potential Impacts	Description of Potential Impact	Mitigation Measure(s)
White-tailed Deer Wintering Area (Stratum II)	Road Development	Any site alteration which reduces the area of forest cover or the food supply available to deer within the wintering habitat will have negative impacts on deer. The greatest impacts are anticipated in situations where core and core feeding areas are affected. Site alterations, such as road construction, which isolate core areas from one another and/or from core feeding areas, will result in deer abandoning the isolated habitat patch. Construction and site alterations on lands adjacent to the yard will have their greatest effect if they disrupt access by deer. Deer are often killed on roads adjacent to yards during winter. This not only affects deer numbers but also presents a serious human safety hazard.	Deer wintering areas are mapped by the OMNF OMNRF District offices. Development will not b demonstrated that there will be no negative im Site selection is typically an important compone should also include consideration of cumulative neighbouring developments and the cumulative undisturbed habitat (OMNR 2011).
		New roads may result in increased human disturbance in nearby/adjacent deer yards (e.g., snow machines, ATVs, ski trails). As deer are displaced by development, they are forced to use poorer quality habitat and typically succumb to a variety of mortality factors from which the deer yard had protected them. Eventually deer numbers decline below what is needed to establish and maintain an adequate trail network through snow. At that point, mortality rates climb and eventually there is a loss of traditional use of the area. This loss of function will affect deer over an area 10 times larger than the original yard (Broadfoot et al. 1996).	Clearing for development, and development-rereduced ecological function or loss of the habit complete avoidance is not possible, and the SW satisfactory mitigation option, e.g., make the desite it at the edge of the habitat where deer act. The effects of any development proposed for d cover and core feeding areas, and areas of adja (i.e., agricultural crops). Construction of any new road through a deer w roads through this type of habitat puts both de from core cover and core feeding areas and areas and areas food supplies (i.e., agricultural crops). Road development crops).
			Any road built within or adjacent to wintering h the high risk of striking a deer. Browse along ro areas may need to be controlled (i.e., through k In some areas, roadside wildlife warning reflect
			D'Angelo et al. (2006) found that these were in Road development tends to increase human ac should be restricted during the winter since any energy at a time when energy conservation is c should be closed while deer are yarding. In som If fencing is used, it is very important to ensure

Note. Adapted from the Significant Wildlife Habitat Mitigation Support Tool, by OMNRF, 2014, pp. 22 – 25.

RF, and information about their location and size will be available at be permitted in Stratum I (core) deer wintering areas unless it can be npacts on the feature or its ecological function (OMNRF 2014).

ent of a successful mitigation strategy. Best practices for site selection impacts. For example, planners should account for known impacts in e amount of disturbed/converted habitat relative to the amount of

elated human disturbance, in deer wintering SWH will likely result in tat. The best mitigation option is to avoid developing in the habitat. When VH is large, minimizing the amount of habitat affected may be a evelopment footprint where it affects the habitat as small as possible, and tivity is lowest.

leer yards can be made less severe by directing activity away from core acent lands offering deer the opportunity to access abundant food supplies

vintering area will increase deer/vehicle collisions. Planning to develop eer and human safety at risk. Road development should be directed away eas of adjacent lands offering deer the opportunity to access abundant velopment should never isolate the core areas of a yard from eachother or e Index 39, Cervid Movement Corridor).

nabitat will need to have Deer-crossing signs erected to warn motorists of bad rights-of-way adjacent to or in close proximity to wintering and feeding brushing) to minimize deer-vehicle collisions.

tors have been erected to reduce the incidence of deer-vehicle collisions. neffective.

ctivity in an area. Human activity in either core cover or core feeding areas y movement by deer at this time incurs a relatively large investment of critical for their survival. Nature/recreation trails traversing these habitats ne circumstances, it may be necessary to install fences to keep people out. that it does not block deer movement to/from the habitat.

#### 3.7 Selection of Pipeline Routes

Based on the above observations made by 4 Directions biologists and AOPFN community members during the desktop assessment phase and September 6<sup>th</sup> site visit, clarity is required on how Stantec and Enbridge selected the preferred route for the pipeline expansion. During the site visit it became quite clear to 4 Directions and AOPFN that the alternative routes "A0", "A2", and "A3", encompassed areas that have large road allowances and have already been altered and, therefore, likely involving lower environmental impacts than the identified preferred route. It's 4 Directions and AOPFN's position that Enbridge re-consider selecting the mentioned secondary routes for the pipeline extension to mitigate impacts both to the environment and AOPFN's access to significant harvesting areas. 4 Directions and the AOPFN strongly recommend an opportunity for more dialogue to occur to continue to uphold the protection and preservation of Indigenous inherent, Aboriginal and Treaty rights.

### 4.0 Closing Remarks

We hope this memo aids in your project planning. If you have any questions or concerns, please contact us.

Miigwetch,

Jeffrey Driscoll, BSc., MSc., M.Env.Sc. Terrestrial Ecologist 4 Directions of Conservation Consulting Services (e): jdriscoll@4directionsconservation.com



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## Appendix 1: Figures

FIGURE 1. A MAP DEPICTING THE PREFERRED AND ALTERNATIVE ROUTES FOR ENBRIDGE'S PROPOSED 21KM PIPELINE EXPANSION IN THE TOWNSHIP OF EGANVILLE, COUNTY OF RENFREW, ONTARIO.





FIGURE 2. GRAPHICAL RECORD OF THE ROUTE TRAVELLED ON SEPTEMBER 6<sup>TH</sup>, 2023, BY 4 DIRECTIONS, AOPFN CONSULTATION AND COMMUNITY MEMBERS, AND ENBRIDGE STAFF DURING THE EGANVILLE COMMUNITY EXPANSION SITE VISIT WITHIN THE TOWNSHIP OF EGANVILLE, COUNTY OF RENFREW, ONTARIO.



## Appendix 2: Incidental Wildlife Observations

TABLE 1. ALL SPECIES LISTED BELOW WERE OBSERVED VISUALLY DURING THE SITE VISIT ON SEPTEMBER 6, 2023, AT THE EGANVILLE COMMUNITY EXPANSION PROJECT AREA, LED BY A REPRESENTATIVE FROM ENBRIDGE, AND OVERSEEN BY BIOLOGISTS FROM 4 DIRECTIONS, AND CONSULTATION AND COMMUNITY MEMBERS FROM THE ALGONQUINS OF PIKWÀKANAGÀN FIRST NATION. G-RANK, S-RANK, SARO, AND COSEWIC STATUS WERE DETERMINED USING THE ONTARIO NHIC SPECIES LIST, LAST UPDATED ON MARCH 1, 2023 (GOVERNMENT OF ONTARIO, 2023). SARA STATUS WAS DETERMINED USING THE SPECIES AT RISK PUBLIC REGISTRY PUBLISHED BY THE GOVERNMENT OF CANADA (GOVERNMENT OF CANADA, 2023).

Birds							
Common Name	Scientific Name	G Rank	S Rank	SARO	COSEWIC	SARA	Observation Details
Eastern Meadowlark	Sturnella magna	G5	S4B,S3N	THR	THR	THR	Road mortality specimen identified visually
American Kestrel	Falco sparverius	G5	S4B,S3N				Identified visually
Insects							
Common Name	Scientific Name	G Rank	S Rank	SARO	COSEWIC	SARA	Observation Details
Monarch	Danaus plexippus	G4	S2N,S4B	SC	END	SC	Adult butterfly Identified visually
Mammals							
Common Name	Scientific Name	G Rank	S Rank	SARO	COSEWIC	SARA	Observation Details
American Beaver	Castor canadensis	G5	S5				Visually observed beaver dam features
Reptiles							
Common Name	Scientific Name	G Rank	S Rank	SARO	COSEWIC	SARA	Observation Details
Eastern Gartersnake	Thamnophis sirtalis sirtalis	G5T5	S5				Road mortality specimen observed visually
Vascular Plants							
Common Name	Scientific Name	G Rank	S Rank	SARO	COSEWIC	SARA	Observation Details
Common Milkweed	Asclepias syriaca	G5	S5				Visually observed

## Appendix 3: Site Photos

Eganville Community Expansion site photos were taken on September 6<sup>th</sup>, 2023, by Jeffrey Driscoll, Terrestrial Ecologist at 4 Directions of Conservation Consulting Services.



PHOTO SITE 1 (LETTS CEMETERY RD) - 18T 336560.83MN 336560.83ME





PHOTO SITE 2 (LETTS CEMETERY RD/COLD CREEK RD) – 18T 5049294.07MN 336231.02ME





PHOTO SITE 3 (COLD CREEK RD / MINK LAKE RD) – 18T 5050029.68MN 338295.48ME





PHOTO SITE 4 (EASTERN MEADOWLARK ROAD MORTALITY) – 18T 5050029.68MN 338295.48ME



PHOTO SITE 5 (MCGAGHRAN RD & SNAKE RIVER) – 18T 5052408.14MN 344006.21ME





PHOTO SITE 6 (MICKSBURG RD / MCGEE ST & SNAKE RIVER) - 18T 5052408.14MN 344006.21ME





PHOTO SITE 7 (EASTERN GARTERSNAKE ROAD MORTALITY) – 18T 5053716.1MN 349140.5ME





PHOTO SITE 8 (BULGER RD / COBDEN RD & MINK CREEK) – 18T 5047101.96MN 343702.03ME





PHOTO SITE 8 (SAND RD & HURDS CREEK) – 18T 5043496.78MN 334313.26ME



From: Melanie Green <Melanie.Green@enbridge.com> Sent: December 12, 2023 11:12 AM To: Brown, Gillian (ENERGY) <Gillian.Brown2@ontario.ca> Cc: Lauryn Graham <lauryn.graham@enbridge.com> Subject: Letter of Opinion - Eganville Community Expansion Project

# CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good morning, Gillian,

Just touching base on the letter of opinion on Eganville – would you know when we might hear outcome of letter of opinion?

Thank you, a ton, in advance,

Mel

From:Brown, Gillian (ENERGY)To:Melanie GreenCc:Lauryn Graham; McCabe, Shannon (She/Her) (ENERGY); Teevan, Sinead (ENERGY)Subject:[External] RE: Letter of Opinion - Eganville Community Expansion ProjectDate:Tuesday, December 12, 2023 11:15:33 AM

#### CAUTION! EXTERNAL SENDER

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Hi Mel,

Shannon and Sinead are working on the Eganville sufficiency assessment, so I've cc'd them here so they can reply directly to you!

Take care and talk soon. Gillian

From:	McCabe, Shannon (She/Her) (ENERGY)
To:	Melanie Green
Cc:	Lauryn Graham; Teevan, Sinead (ENERGY)
Subject:	[External] RE: Letter of Opinion - Eganville Community Expansion Project
Date:	Tuesday, December 12, 2023 11:27:39 AM

#### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Hi Mel,

Hope you're doing well. Sinead and I have heard from a few communities, and there are no issues so far! We're just doing some additional follow-ups to the communities we haven't heard from yet. We should be in a position to provide the letter of opinion soon.

Thanks, Shannon

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-1 Plus Attachments Page 1 of 3

#### ENBRIDGE GAS INC.

#### Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1, Page 5 & 6

Question(s):

- a) Please reproduce Figure 1 adding a separate column for heating with electric air source heat pumps and please complete the row in Table 1 for electric air source heat pumps with caveats as necessary. Please provide a table listing all the calculations and assumptions underlying the cost estimate for electric air source heat pumps.
- b) Please reproduce Figure 1 and Table 1 adding details for the annual costs for a cold-climate heat pump generated using the Guidehouse spreadsheet filed in the Hidden Valley Community Expansion Case, updated to incorporate the latest rates and the gas monthly customer charges.
- c) Please provide all the underlying calculations and assumptions underlying Figure 1 and Table 1, including the underlying spreadsheet with live formulas. Please include all assumptions, including, but not limited to, the assumed price on carbon.
- d) If an excel spreadsheet is used to assess the relative cost-effectiveness of the various heating options, please provide that live excel spreadsheet with the variables set consistent with output in Figure 1. A model that Enbridge used in the past can be found at EB-2019-0188, Exhibit I.ED.7, Attachment 1, but we do not have a version that has been updated and set with the variables used in this case.

#### Response:

#### a - b)

ED's request seeks to have Enbridge Gas develop information that is unrelated to and incongruent with the purpose of the figure and table referenced in the interrogatory (Figure 1 and Table 1), which is to illustrate consumer cost savings for conversions from existing base case fuel (i.e., electric (resistance), oil, and propane) to natural gas. Figure 1 and Table 1 are not intended to provide information regarding
consumer conversions from natural gas (or other fuels) to non-natural gas energy solutions. As a result, it is not appropriate to provide a response to ED's request.

Enbridge Gas has provided a lengthy discussion regarding the annual operating costs and up-front capital costs of high-efficiency electric cold climate air source heat pumps (ccASHP) in the response to Exhibit I.ED-28. However, the intent of this leave to construct Application is to demonstrate the need for, and community interest in, connecting to natural gas, and therefore incorporating the ccASHP data into Figure 1 and Table 1 serve no practical purpose in the context of this Application. In fact, providing consumers with cost information regarding conversions to ccASHP is not relevant to Enbridge Gas's natural gas leave to construct Applications, as the Company has no ability to cause consumers to convert to those solutions via the Applications. Furthermore, the OEB is not making a choice between heat pumps or the pipeline expansion.

Aside from the relevance issue, there are a number of other reasons why providing the comparison requested would be inappropriate and/or misleading:

- Information related to conversions to non-natural gas energy solutions without consideration of those energy solutions' supply-side requirements and implications would not be appropriate or valuable. Regarding natural gas solutions, the Company's natural gas community expansion applications contemplate all OEB-established natural gas supply-side requirements for leave to construct, including natural gas project costs, natural gas project economics, environmental impacts, land impacts, and Indigenous consultations.
- Figure 1 and Table 1 reflect whole-home heating scenarios (which include space heating and water heating). High-efficiency electric ccASHPs only provide space heating. As such, ED's request to add high-efficiency electric ccASHPs omits water heating considerations from the analysis. Adding electric water heating equipment to the analysis would require additional and separate performance efficiency considerations from the high-efficiency electric ccASHP, further complicating the analysis.
- The performance efficiencies of the energy solutions in Figure 1 and Table 1 are based on weighted-average efficiencies for each fuel type, not the highest possible performance efficiency for each fuel type. ED's request to add high efficiency electric ccASHPs to Figure 1 and Table 1 as a comparable to the other energy solutions would be an asymmetrical comparison to those other energy solutions.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-1 Plus Attachments Page 3 of 3

In summary, Enbridge Gas is neither causing consumers to convert to high efficiency electric ccASHPs, nor causing consumers to convert from high-efficiency electric ccASHPs to natural gas, via the current leave to construct Application. As such, and based on the foregoing, providing consumer cost comparison information for high-efficiency electric ccASHPs as requested by ED is entirely outside of the scope of the Company's natural gas leave to construct Application.

### c - d)

Please see Attachment 1 to this response for all the underlying calculations and assumptions used for Table 1 and Figure 1. The model referenced by ED in the interrogatory was not used in relation to this Project or the current Application.

Additionally, Attachment 2 to this response provides Figure 1 updated based on natural gas price for Rate 1 in effect as of January 1, 2024. Rates for all other fuel types continue to be based on best available information at the time of comparison (November 2023 for heating oil, November 2023 for propane, and January 2024 and winter Time of Use (TOU) for electricity).



Notes: Natural gas price is based on Rate 1 rates in effect as of July 1, 2023, and includes the \$0.23 per m<sup>3</sup> expansion surcharge. Oil and propane prices are based on the latest available retail prices at the time of comparison. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of Jan. 1, 2023, and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. It includes the Ontario Electricity Rebate (OER). Electric cold climate air source heat pumps are available but not included in the savings calculations. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. The Federal carbon charge is included for all energy types as reported and expected to increase annually depending on government policies. HST is not included.

	Penetration			Annual Natural Gas
Primary Fuel	Rate		Annual Bill (\$)	Saving With SES (\$)
Natural Gas	-	\$	1,852	-
Electricity (non-heat pump)	5%	\$	2,445	\$ 593
Heating Oil	26%	\$	4,372	\$ 2,520
Propane	47%	\$	2,727	\$ 875
Wood	15%		Not Available	Not Available
Heat Pumps	3%		Not Applicable	Not Applicable
Average Annual Natural Gas Savings (cc	mpared to alt	ern	ative fuel sources)	\$ 1,096

Annual Energy Price Comparison for a Typical Residential Customer living in the EGD Rate Zone, Rate 1 (Space & Water Heating) Including SES

<b>ENBRIDGE</b>	Annual Cost Comparison: Space & Water Heating					
	Natural Gas         Heating Oil         Electricity         Propane           \$0.772/m³         \$1.633/L         \$0.114/kWh         \$0.720/L					
Annual Consumption	2,400	2,678	21,448	3,788		
Annual Contribution to Energy Bill	\$1,852	\$4,372	\$2,445	\$2,727		
Energy Cost per Unit	\$0.772	\$1.633	\$0.114	\$0.720		
Annual Natural Gas Savings (\$)		\$2,520	\$593	\$875		
Annual Natural Gas Savings (%)		58%	24%	32%		

#### Notes

#### (1) Annual Consumption

For EGD rate zone, the natural gas consumption assumption for a typical residential customer is 2,400m3. All comparisons are based on an energy-equivalent annual consumption level of 2,400 m3/yr.

The energy-equivalent annual consumption for other energy sources (Electricity, Oil and Propane) are calculated as:

Natural gas consumption (2,400 m3) \* Conversion from m3 to GJ \* Conversions from GJ to kwh (for electricity) and to L (for oil and propane)

#### (2) Energy Cost per Unit

The energy cost per unit for each energy source is based on the latest actual data available

- a) Natural Gas cost per unit for a typical residential customer is from the July 2023 QRAM filing for EGD (EB-2023-0134). Please refer to 'Natural Gas Price (\$ per m3)' tab for a detailed calculation.
- b) Oil cost per unit is from Statistics Canada using the latest available monthly retail price at the time of comparison. Please refer to 'Heating Oil Price (\$ per L)' tab for a detailed calculation.
- c) Electricity cost per unit is from Hydro One Networks Inc. (EB-2021-0110), Tariff of Rates and Charges, Effective and Implementation Date January 1, 2023. Please refer to 'Electricity Price (\$ per kWh)' tab for a detailed calculation.
- d) Propane cost per unit is calculated using a monthly average of the latest residential retail prices available at the time of comparison and factors in the actual carbon tax. Please refer to 'Propane Price (\$ per L)' tab for a detailed calculation.

# Efficiency-Adjusted Energy Source Conversion

Table 1					
	Energy Energy Units	Natural Gas m3	Heating Oil L	Electricity kWh	Propane L
EGD Rate Zone - Residential Rate 1		2,400	2,678	21,448	3,788

# Energy Conversion Assumptions

<u>Table 1</u> (1)					
Unit	Equivalent Value	Equivalent Unit			
1.0 Gigajoules (GJ)	277.7778	Kilowatt-hours (kW.h)			
1.0 Kilowatt-hours (kW.h)	0.0036	Gigajoules (GJ)			
<u>Note:</u> (1) Sourced from https://apps.cer-rec.gc.ca/	Conversion/conversion-tables.aspx?Gc	oCTemplateCulture=en-CA			

	<u>Table 2</u> (1)		
Substance	Unit	Equivalent Value	Equivalent Unit
Heating Oil	1.0 Cubic metres (m <sup>3</sup> )	36.72	Gigajoules (GJ)
Propane	1.0 Cubic metres (m³)	25.53	Gigajoules (GJ)
Note:			
(1) Sourced from https://apps.cer-re	c.gc.ca/Conversion/conversion-tables.aspx?GoCTen	nplateCulture=en-CA	

<u>Table 3</u> Enbridge Gas unit of Measure Conversion Information	
	EGD Rate Zone (1)
Heat Value (MJ/m <sup>3</sup> )	38.53
Conversion Factor (GJ/m <sup>3</sup> )	0.03853
<u>Note</u> (1) Sourced from EB-2022-0286, Rate Handbook, Rate 1 Residential Service (MJ/m <sup>3</sup> )	

	<u>Table 4</u> Energy Price Conversion		
Substance	Starting Unit	Conversion	Conversion Unit
Electricity	GJ	277.777778	kWh
Heating Oil	GJ	27.23311547	L
Propane	GJ	39.16960439	L

# Efficiency Factor Assumptions

Table 1	
Current Assumed Base Load and Heat Loa	ad Proportions
<u>Heat Load:</u> Space Heating (SH)	70%
<u>Base Load:</u> Domestic Water Heating (DWH)	30%
Total Load	100%

Table 2						
Current Efficiency Factors for a Typical Residential Customer - Rate 1						
	Natural Gas Electricity Heating Oil Propane					
Space Heating (SH) Domestic Water Heating (DWH)	89% 68%	100% 98%	84% 65%	84% 68%		
Total	83%	99%	78%	79%		

# Natural Gas Assumptions

<u></u>	able 1				
Typical Residenital Customer Total Bill Impacts (1)					
E	EGD				
Rates Effective:	July. 1, 2023	<u> </u>			
Volume	m3		2,400		
Customer Charge	\$		274.56		
Distribution Charge	\$		227.50		
Load Balancing	\$		33.81		
Transportation	\$		102.49		
Sales Commodity	\$		285.77		
Federal Carbon Charge	\$		297.36		
Cost Adjustment	\$				
Gas Supply	\$	92.80			
Transportation	\$	1.00			
Delivery	\$	(15.24)	78.56		
Total Sales with Cost Adjustments	\$		1,300.04		
Average Rate	\$		0.54		
System Expansion Surcharge (SES)	\$		0.23		
Average Rate including SES	\$		0.772		

Notes for Table 1:

(1) Sourced from EB-2023-0134, Exhibit A, Tab 3, Schedule 1, Page 1, EGD

# **Oil Assumptions**

	Table 1				
	Home Heating Oil (HHO) (1)				
	Federal/Provincial				
	Carbon Tax Charge	HHO	HHO	HHO	
Month	HHO (2)	(v735163) (3)	(excl. GST/HST)	(excl. tax and C&T)	
Jan-23	13.41	221.6	196.11	182.70	
Feb-23	13.41	196.9	174.25	160.84	
Mar-23	13.41	186.5	165.04	151.63	
Apr-23	17.38	184.5	163.27	145.89	
May-23					
Jun-23					
Jul-23					
Aug-23					
Sep-23					
Oct-23					
Nov-23					
Dec-23					
Total \$/L	1.633				

Notes for Table 1:

(1) all prices in cents/litre

(2) Sourced from https://www.canada.ca/en/revenue-agency/services/formspublications/publications/fcrates/fuel-charge-rates.html#confacnatgas

(3) Sourced from the Conference Board of Canada (CANSIM) - v735163

## **Electricity Assumptions**

Ontario Energy Rebate (OER): 11.7% (1)

Table 1 Regulated Price Plan -TOU Time of Use				
	Cents/kWh (2)	% of Load (3)		
On Peak	15.10	19%		
Mid Peak	10.20	18%		
Off Peak	7.40	63%		
Total Load - cent/KWh	9.37			
Total Load - \$/kWh	0.0937			

Notes for Table 1:

(1) Sourced from OEB Newsroom - Friday Oct. 21, 2022

(2) TOU rates effective from May 1, 2023 to October 31, 2023

(3) Sourced from OEB Regulated Price Plan Price Report - November 1, 2022 to October 31, 2

Table 2		
Hydro One Electricity Ra	ates	
Medium Density - R1 (	(1)	
Rates Effective	<u>1-Jan-2023</u>	
Service Charge (2)	60.72	\$/month
Distribution Rate	0.0056	\$/kWh
Transmission	0.0188	\$/kWh
Wholesale Market Service Rate + CBR	0.0034	\$/kWh
Rural rate protection charge	0.0005	\$/kWh
Adjustment Factor Charge	1.076	
Standard Supply Servise Charge	0.25	\$/month
Fixed Charge Rate Riders		
SME	0.42	\$/month
Total \$/kWh	0.129	\$/kWh
Total \$/kWh with OER	0.114	\$/kWh
Total \$/kWh with OER, no distribution charge	0.109	\$/kWh

Notes for Table 2:

 (1) Sourced from EB-2021-0110 Hydro One Networks Inc. Tariff of Rates and Charges, Effective and Implementation Date January 1, 2023 Medium Density (2) Excluded for cost comparison purposes

# Propane Assumptions

Ending Value Apr. 28, 2023 (cents/L)

65.60 (1)

	Table	1			
Propane	Prices for Reside	ntial Rate 1 (	Customer		
			Daily Price		
Date	\$/L	Cents/L	Change (2)	Carbon Tax (3)	Total
28-Apr-2023	0.6560	65.60	(0.70)	0.1006	0.7566
29-Apr-2023	0.6520	65.20	(0.40)	0.1006	0.7526
30-Apr-2023	0.6520	65.20	0.00	0.1006	0.7526
01-May-2023	0.6520	65.20	0.00	0.1006	0.7526
02-May-2023	0.6350	63.50	(1.70)	0.1006	0.7356
03-May-2023	0.6280	62.80	(0.70)	0.1006	0.7286
04-May-2023	0.6150	61.50	(1.30)	0.1006	0.7156
05-May-2023	0.6240	62.40	0.90	0.1006	0.7246
06-May-2023	0.6290	62.90	0.50	0.1006	0.7296
07-May-2023	0.6290	62.90	0.00	0.1006	0.7296
08-May-2023	0.6290	62.90	0.00	0.1006	0.7296
09-May-2023	0.6330	63.30	0.40	0.1006	0.7336
10-May-2023	0.6310	63.10	(0.20)	0.1006	0.7316
11-May-2023	0.6280	62.80	(0.30)	0.1006	0.7286
12-May-2023	0.6230	62.30	(0.50)	0.1006	0.7236
13-May-2023	0.6170	61.70	(0.60)	0.1006	0.7176
14-May-2023	0.6170	61.70	0.00	0.1006	0.7176
15-May-2023	0.6170	61.70	0.00	0.1006	0.7176
16-May-2023	0.6110	61.10	(0.60)	0.1006	0.7116
17-May-2023	0.6120	61.20	0.10	0.1006	0.7126
18-May-2023	0.6150	61.50	0.30	0.1006	0.7156
19-May-2023	0.6120	61.20	(0.30)	0.1006	0.7126
20-May-2023	0.6140	61.40	0.20	0.1006	0.7146
21-May-2023	0.6140	61.40	0.00	0.1006	0.7146
22-May-2023	0.6140	61.40	0.00	0.1006	0.7146
23-May-2023	0.6140	61.40	0.00	0.1006	0.7146
24-May-2023	0.6140	61.40	0.00	0.1006	0.7146
25-May-2023	0.6180	61.80	0.40	0.1006	0.7186
26-May-2023	0.6110	61.10	(0.70)	0.1006	0.7116
27-May-2023	0.6110	61.10	0.00	0.1006	0.7116
28-May-2023	0.6110	61.10	0.00	0.1006	0.7116
29-May-2023	0.6110	61.10	0.00	0.1006	0.7116
30-May-2023	0.6110	61.10	0.00	0.1006	0.7116
31-Mav-2023	0.5980	59.80	(1.30)	0.1006	0.6986
			()		
May Monthly Average	61.929				
Current Price:	61.929				
Carbon Tax:	10.060				
Total Cents/I	71.989				
\$/L	0.720				

Notes for Table 1

(1) Date of the last recorded daily price change from the previous month

(2) Source: https://edproenergy.com/residential/; Zone 5, 2,500-4,499 Litres

(3) Source: https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/fcrates/fuel-charge-rates.html

**EENBRIDGE** 

Rate 1 Annual Space & Water Heating Cost



Notes: Natural gas price is based on Rate 1 rates in effect as of January 1, 2024, and includes the \$0.23 per m<sup>2</sup> expansion surcharge. Oil and propane prices are based on the latest available retail prices. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of Jan. 1, 2024, and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. It includes the Ontario Electricity Rebate (OER). Electric cold climate air source heat pumps are available but not included in the savings calculations. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. The Federal carbon charge is included for all energy types as reported and expected to increase annually depending on government policies. HST is not included.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-2 Plus Attachments Page 1 of 1

## ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1

### Question(s):

- a) Please provide all communications to and from the Townships of Admaston/Bromley, North-Algona Wilberforce, and Bonnechere Valley regarding the project, including all communications to the each of these Townships describing the benefits (e.g. letters, presentations, etc.).
- b) Please provide a list of all meetings with staff and elected officials from the Townships of Admaston/Bromley, North-Algona Wilberforce, and Bonnechere Valley and the meeting notes and materials for each.

## Response:

a) The Townships of Admaston/Bromley, North-Algona Wilberforce and Bonnechere Valley (the Townships) were provided the Notice of Study Commencement, In-Person and Virtual Open Houses (Notice) on September 14, 2022, and a copy of the Environment Report on April 4, 2023. Please refer to Appendix B.6 (Environmental Consultation Log) and Appendix B.2 (Project Contact List) of the Environmental Report at Exhibit F, Tab 1, Schedule 1, Attachment 1 for a copy of the Notice.

For all other communications with the Townships, please see Attachment 1 to this response.

b) Please see Attachment 2 to this response for a list of engagements between Enbridge Gas and the Townships regarding the Project. Township of Admaston Bromley Correspondence Log



Enbridge Gas Inc. 400 Coventry Road Ottawa, ON K1K 2C7

February 11, 2020

Mayor Michael Donohue Township of Admaston Bromley 477 Stone Road, R.R. #2 Renfrew, ON K7V 3Z5

Dear Mayor Donohue and Members of Council,

## **Re: Natural Gas Expansion Program Update**

In December 2019, the Government of Ontario announced its plans to further increase access to natural gas by making financial support available for new expansion projects. The Government's Natural Gas Expansion Program offers an opportunity to drive economic development and enhance the quality of life and prosperity of families and businesses across Ontario. As your Regional Director for Enbridge Gas Inc., I'm writing to provide an update on next steps, and how we can work together to bring natural gas to unserved communities in Ontario.

Enbridge Gas will submit project proposals to the Ontario Energy Board (OEB) based on Guidelines that are currently under development. The OEB will review project submissions and provide a report to the Ministry of Energy, Northern Development and Mines later this year recommending potential natural gas expansion projects that the Ontario government could consider as candidates for financial support. The Ministry of Energy, Northern Development and Mines will review the recommendations of the OEB along with other considerations and issue a decision on future natural gas expansion projects eligible to receive financial support.

Your municipality expressed interest in the 2017 Natural Gas Grant Program and may have a project that you would like to submit for consideration as part of the current Natural Gas Expansion Program. The Guidelines to be issued by the OEB are expected to indicate that project submissions will require certain information to be provided to be considered complete – a summary of expected submission requirements is included with this letter. We ask that you confirm your interest to bring natural gas to your municipality by providing a letter of support returned to us within 10-15 business days of receiving this letter. A sample letter of support is also included for your consideration.

For more than 170 years, Enbridge Gas has been delivering the energy that Ontarians need and want. With our long history, anchored in our commitment to operational excellence and strong safety performance, Enbridge Gas is in the best position to bring natural gas to currently unserved areas. We have a number of expansion projects underway, and we are committed to building on this success. If you have any questions, please do not hesitate to contact me or your Municipal Advisor, Sonia Fazari, at Sonia.fazari@enbridge.com.

Sincerely,

lan Ross Director, Eastern Region Operations Enbridge Gas Inc. 613-748-6810

From:	Sonia Fazari
То:	<u>"mayordonohue@admastonbromley.com"; mquilty@admastonbromley.com; rdick@admastonbromley.com;</u> <u>bhall@admastonbromley.com; legrisk@gmail.com</u>
Cc:	Jennifer Charkavi
Bcc:	<u>Sonia Fazari</u>
Subject:	Update - Enbridge Gas Notice of Commencement - Natural Gas System Expansion Project
Date:	Tuesday, September 13, 2022 11:59:00 PM
Attachments:	ad 16095306-Eganville 20220901.pdf 160951306 Fig1 StudyArea 20220826.pdf

Dear Mayor Donohue and Members of Council,

I trust you are all doing well! I am reaching out to provide you with some advance notice regarding the Notice of Commencement of the Natural Gas System Expansion Project. Please find attached a copy of the Notice of Commencement ad insert and associated project map that will be published in the Eganville Leader on September 14 and September 21<sup>st</sup>.

We are also planning to hold a Virtual Open House on **September 26, 2022** to **October 9, 2022** at <u>https://solutions.ca/EganvilleEA/</u>. This virtual open house information is also being advertised in the Notice of Commencement.

In the event some of the community residents are not able to log onto the VOH, we would like to have hard copies of the open house virtual story boards (in the form of a slide deck) available at the municipal office for members of the community to take home and review at their leisure.

The Notice of Commencement information will also be shared with the Township of Bonnechere Valley and the Township of North Algona Wilberforce for their awareness and information.

As always, please don't hesitate to reach out with any questions you may have. I will be attending the Ontario East Municipal Conference in Cornwall on Sept 14 and 15<sup>th</sup> but will be reachable on my cell at 416-525-2497 if there is anything you need!

Kind regards, Sonia

#### **Sonia Fazari** Sr. Advisor, Municipal and Stakeholder Engagement, Eastern Region Public Affairs and Communications

**ENBRIDGE GAS INC.** TEL: 416-753-6962 | CELL: 416-525-2497 500 Consumers Road North York, ON M2J 1P8

enbridge.com Integrity. Safety. Respect. Inclusion.

# Enbridge Gas Inc. Notice of Study Commencement and Virtual Open House Eganville Community Expansion Project

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Eganville Community Expansion Project to provide affordable natural gas to the community of Eganville (The Project). The Project will include the construction of new natural gas pipelines to transport natural gas supply from Snake River Line to new distribution system pipelines in Eganville, and distribute natural gas to residential, commercial and industrial customers in Eganville, and along the supply lateral, which is proposed to span the Townships of Admaston/Bromley, Bonnechere Valley, and North Algona Wilberforce.

The Project consists of a supply lateral of approximately 21 kilometers (km) of a combination of 4-inch steel and of 6- and 8-inch polyethylene (PE), a distribution system of up to 22 km of a combination of 6-inch, 4- inch and 2-inch PE pipeline, and a pressure reducing station along the supply lateral. The supply lateral is proposed to be in service by 2024 with the distribution pipelines proposed to be in service as early as 2025. The preliminary preferred or alternative routes and ancillary facilities have been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final project scope/design that will provide access to natural gas to end-use customers.



The Project is planned to be within the existing

municipal Right-of-Way (RoW) with the potential for permanent easements, Temporary Working Space (TWS) and laydown areas.

As part of the planning process, Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the Project. The Environmental Study will fulfill the requirements of the Ontario Energy Board's (OEB) "Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)". It is anticipated that the Environmental Report for the study will be completed in October 2022 after which Enbridge Gas may file an application for the Project to the OEB. The OEB's review and approval is required before the proposed Project can proceed. Construction is currently anticipated to begin in Q4 of 2023.

Consultation and engagement with Indigenous communities, landowners, government agencies, and other interested persons is an integral component of the planning process. As a result of the on-going COVID-19 pandemic, a Virtual Open House will be held in place of an in-person Open House and hard copies of the materials will be available for review in the community (see below)

# The Virtual Open House will be available for two weeks starting on September 26, 2022, and finishing on October 9 2022, at <a href="https://www.solutions.ca/EganvilleEA/">https://www.solutions.ca/EganvilleEA/</a>

If you are unable to log onto the Virtual Open House between **September 26 to October 9**, hard copies of the Open House Materials will be available for in-person viewing at the following locations:

- Township of Bonnechere Valley, 49 Bonnechere Street, Eganville (Municipal Office)
- Township of Admaston/Bromley, 477 Stone Road, R.R.2, Renfrew (Municipal Office)
- North Algona Wilberforce Township, 1091 Shaw Woods Road, Eganville (Municipal Office)

### For any questions or comments regarding the proposed Eganville Community Expansion Project, please reach out to:

Laura Hill, Environmental Scientist Stantec Consulting Ltd. **Telephone:** 613-784-2256 **Email:** EganvilleEA@stantec.com



Or visit the project website at: https://www.Enbridgegas.com/EganvilleProject



From:	Jennifer Charkavi
То:	Kendra Black
Subject:	[External] RE: Proposed natural gas expansion project   and Enbridge Gas
Date:	Friday, August 4, 2023 3:17:22 PM
Attachments:	signed enbridge support letter.pdf

### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Kendra: Please find attached our support letter.

Jennifer E. Charkavi, CEMC, AOMC, Dipl.M.A. CAO/Clerk Township of Admaston/Bromley 477 Stone Road | Renfrew | ON | K7V 3Z5 Tel: 613-432-2885 | Fax: 613-432-4052 cao@admastonbromley.com

From: Kendra Black <Kendra.Black@enbridge.com>
Sent: Tuesday, July 25, 2023 9:40 PM
To: Jennifer Charkavi <cao@admastonbromley.com>
Subject: RE: Proposed natural gas expansion project | and Enbridge Gas

Hi Jennifer,

There are 34 customers in scope.

Thank you, Kendra

From: Jennifer Charkavi <<u>cao@admastonbromley.com</u>>
Sent: Tuesday, July 25, 2023 9:51 AM
To: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Subject: [External] RE: Proposed natural gas expansion project | and Enbridge Gas

### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Can you tell me how many customers Admaston/Bromley could anticipate having, as you have in the template for Bonnechere Valley that you provided. Thank you,

Jennifer E. Charkavi, CEMC, AOMC, Dipl.M.A. CAO/Clerk Township of Admaston/Bromley 477 Stone Road | Renfrew | ON | K7V 3Z5 Tel: 613-432-2885 | Fax: 613-432-4052 cao@admastonbromley.com

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Monday, July 24, 2023 11:33 AM
To: Jennifer Charkavi <<u>cao@admastonbromley.com</u>>
Subject: RE: Proposed natural gas expansion project | and Enbridge Gas

Hi Jennifer,

Thank you for your note.

Here is an overview of what a Leave-to-Construct Application is:

Before Enbridge Gas can initiate construction on a pipeline, we may need to apply for permission or leave to construct from the Ontario Energy Board. OEB leave to construct approval is required if the pipeline project exceeds any of the thresholds outlined in Section 90 of the Ontario Energy Board Act: the proposed hydrocarbon line is more than 20 km in length; the proposed hydrocarbon line is projected to cost more than \$2 million (an amount prescribed by regulation); any part of the proposed hydrocarbon line uses pipe that has a nominal pipe size of 12 inches or more and has an operating pressure of 2,000 kilopascals or more; or criteria prescribed by the regulations are met. For projects that do not require an OEB leave to construct approval (e.g., small natural gas distribution expansion projects), they are planned and assessed according to the environmental screening principles directed in the OEB's EBO 188 Natural Gas System Expansion Report.

If we can be of any assistance in preparing the report, or answer any questions on the Proposed Natural Gas Expansion Project please let me know.

With thanks, Kendra

From: Jennifer Charkavi <<u>cao@admastonbromley.com</u>>
Sent: Monday, July 24, 2023 9:53 AM
To: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Subject: [External] RE: Proposed natural gas expansion project | and Enbridge Gas

### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe. Kendra: Can you send me an explanation of what a Leave-to-Construct Application is. I will do up a report to council for this. Thank you, Jennifer Jennifer E. Charkavi, CEMC, AOMC, Dipl.M.A. CAO/Clerk Township of Admaston/Bromley 477 Stone Road | Renfrew | ON | K7V 3Z5 Tel: 613-432-2885 | Fax: 613-432-4052 cao@admastonbromley.com

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Friday, July 21, 2023 2:51 PM
To: Jennifer Charkavi <<u>cao@admastonbromley.com</u>>
Subject: Proposed natural gas expansion project | and Enbridge Gas

Hello Jennifer,

I hope you are doing well and enjoying the summer.

I'm connecting today as the team is working toward our leave-to-construct application for the Eganville natural gas expansion project traversing through the Township of Adamston/Bromley. Our leave-to-construction applications, which are submitted to the Ontario Energy Board, are enhanced when we are able to include letters of support from the municipalities.

I wanted to follow up with you on if you and your municipality would provide a letter in support of our application leave-to-construct application (by way of a letter, or an email)? Attached please find a template for your consideration.

Please let me know if you'd like to discuss or have any questions out our ask, or the project.

With thanks,

Kendra

Kendra Black Supervisor, Municipal and Stakeholder Engagement Public Affairs & Communications

ENBRIDGE GAS INC. 416-806-7443 500 Consumers Road, Toronto, ON, M2J 1P8

<u>enbridgegas.com</u> Safety. Integrity. Respect. Inclusion.



477 Stone Road Renfrew ON, K7V 3Z5

August 4, 2023

**Re: Expression of Support for Eganville Community Expansion Project in the Township of Bonnechere Valley** 

Enbridge Gas is preparing a Leave-to-Construct (LTC) application to the Ontario Energy Board (OEB) for the Eganville Community Expansion Project.

This project will provide natural gas access to nearly 674 forecasted customers in our neighbouring community of Eganville in Bonnechere Valley and over 30 customers in our Township of Admaston/Bromley over the next 10 years, which will give area residents a reliable, affordable option for their energy needs.

On behalf of the Township of Admaston/Bromley, by way of this letter, I am providing written support for this project, and anticipate it will be included in Enbridge's submission files.

We look forward to working together on this project.

Sincerely

Michael Donohue Mayor

Phone 613-432-2885

Fax 613-432-4052

Township of North Algona Wilberforce Correspondence Log



Enbridge Gas Inc. 400 Coventry Road Ottawa, ON K1K 2C7

February 11, 2020

Mayor James Brose Township of North Algona Wilberforce 1091 Shaw Woods Rd., R.R.1 Eganville, ON K0J 1T0

Dear Mayor Brose and Members of Council,

### **Re: Natural Gas Expansion Program Update**

In December 2019, the Government of Ontario announced its plans to further increase access to natural gas by making financial support available for new expansion projects. The Government's Natural Gas Expansion Program offers an opportunity to drive economic development and enhance the quality of life and prosperity of families and businesses across Ontario. As your Regional Director for Enbridge Gas Inc., I'm writing to provide an update on next steps, and how we can work together to bring natural gas to unserved communities in Ontario.

Enbridge Gas will submit project proposals to the Ontario Energy Board (OEB) based on Guidelines that are currently under development. The OEB will review project submissions and provide a report to the Ministry of Energy, Northern Development and Mines later this year recommending potential natural gas expansion projects that the Ontario government could consider as candidates for financial support. The Ministry of Energy, Northern Development and Mines will review the recommendations of the OEB along with other considerations and issue a decision on future natural gas expansion projects eligible to receive financial support.

Your municipality may have a project that you would like to submit for funding consideration. Based on Guidelines expected to be issued by the OEB, submissions will require certain information in order to be considered for funding. A summary of the expected filing requirements is included with this letter. If you would like to move a project within your community forward for consideration by the OEB, we ask that you provide a letter of support returned to us within 10-15 business days of receiving this letter. A sample letter of support is also included for your consideration.

For more than 170 years, Enbridge Gas has been delivering the energy that Ontarians need and want. With our long history, anchored in our commitment to operational excellence and strong safety performance, Enbridge Gas is in the best position to bring natural gas to currently unserved areas. We have a number of expansion projects underway, and we are committed to building on this success. If you have any questions, please do not hesitate to contact me or your Municipal Advisor, Sonia Fazari, at Sonia.fazari@enbridge.com.

Sincerely,

lan Ross Director, Eastern Region Operations Enbridge Gas Inc. 613-748-6810

From:	<u>Sonia Fazari</u>
То:	jbrose@nalgonawil.com; mberndt@nalgonawil.com; dbuckwald@nalgonawil.com; jreiche@nalgonawil.com; mrobinson@nalgonawil.com
Cc:	Clerk
Subject:	Update - Enbridge Gas Notice of Commencement - Natural Gas System Expansion Project
Date:	Tuesday, September 13, 2022 11:53:00 PM
Attachments:	ad 16095306-Eganville 20220901.pdf 160951306 Fig1 StudyArea 20220826.pdf

Dear Mayor Brose and Members of Council,

I trust you are all doing well! I am reaching out to provide you with some advance notice regarding the Notice of Commencement of the Natural Gas System Expansion Project. Please find attached a copy of the Notice of Commencement ad insert and associated project map that will be published in the Eganville Leader on September 14 and September 21<sup>st</sup>.

We are also planning to hold a Virtual Open House on **September 26, 2022** to **October 9, 2022** at <u>https://solutions.ca/EganvilleEA/</u>. This virtual open house information is also being advertised in the Notice of Commencement.

In the event some of the community residents are not able to log onto the VOH, we would like to have hard copies of the open house virtual story boards (in the form of a slide deck) available at the municipal office for members of the community to take home and review at their leisure.

The Notice of Commencement information will also be shared with the Township of Bonnechere Valley and the Township of Admaston/Bromley for their awareness and information.

As always, please don't hesitate to reach out with any questions you may have. I am planning to be at the Ontario East Municipal Conference in Cornwall on Sept 14 and 15<sup>th</sup> but will be reachable on my cell at 416-525-2497 if there is anything you need!

Kind regards, Sonia

### Sonia Fazari

Sr. Advisor, Municipal and Stakeholder Engagement, Eastern Region Public Affairs and Communications

**ENBRIDGE GAS INC.** TEL: 416-753-6962 | CELL: 416-525-2497 500 Consumers Road North York, ON M2J 1P8

<u>enbridge.com</u> Integrity. Safety. Respect. Inclusion.

# Enbridge Gas Inc. Notice of Study Commencement and Virtual Open House Eganville Community Expansion Project

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Eganville Community Expansion Project to provide affordable natural gas to the community of Eganville (The Project). The Project will include the construction of new natural gas pipelines to transport natural gas supply from Snake River Line to new distribution system pipelines in Eganville, and distribute natural gas to residential, commercial and industrial customers in Eganville, and along the supply lateral, which is proposed to span the Townships of Admaston/Bromley, Bonnechere Valley, and North Algona Wilberforce.

The Project consists of a supply lateral of approximately 21 kilometers (km) of a combination of 4-inch steel and of 6- and 8-inch polyethylene (PE), a distribution system of up to 22 km of a combination of 6-inch, 4- inch and 2-inch PE pipeline, and a pressure reducing station along the supply lateral. The supply lateral is proposed to be in service by 2024 with the distribution pipelines proposed to be in service as early as 2025. The preliminary preferred or alternative routes and ancillary facilities have been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final project scope/design that will provide access to natural gas to end-use customers.



The Project is planned to be within the existing

municipal Right-of-Way (RoW) with the potential for permanent easements, Temporary Working Space (TWS) and laydown areas.

As part of the planning process, Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the Project. The Environmental Study will fulfill the requirements of the Ontario Energy Board's (OEB) "Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)". It is anticipated that the Environmental Report for the study will be completed in October 2022 after which Enbridge Gas may file an application for the Project to the OEB. The OEB's review and approval is required before the proposed Project can proceed. Construction is currently anticipated to begin in Q4 of 2023.

Consultation and engagement with Indigenous communities, landowners, government agencies, and other interested persons is an integral component of the planning process. As a result of the on-going COVID-19 pandemic, a Virtual Open House will be held in place of an in-person Open House and hard copies of the materials will be available for review in the community (see below)

# The Virtual Open House will be available for two weeks starting on September 26, 2022, and finishing on October 9 2022, at <a href="https://www.solutions.ca/EganvilleEA/">https://www.solutions.ca/EganvilleEA/</a>

If you are unable to log onto the Virtual Open House between **September 26 to October 9**, hard copies of the Open House Materials will be available for in-person viewing at the following locations:

- Township of Bonnechere Valley, 49 Bonnechere Street, Eganville (Municipal Office)
- Township of Admaston/Bromley, 477 Stone Road, R.R.2, Renfrew (Municipal Office)
- North Algona Wilberforce Township, 1091 Shaw Woods Road, Eganville (Municipal Office)

### For any questions or comments regarding the proposed Eganville Community Expansion Project, please reach out to:

Laura Hill, Environmental Scientist Stantec Consulting Ltd. **Telephone:** 613-784-2256 **Email:** EganvilleEA@stantec.com



Or visit the project website at: https://www.Enbridgegas.com/EganvilleProject

#### Township of North Algona Wilberforce



From:	Sonia Fazari
То:	jbrose@nalgonawil.com
Subject:	Additional Key Messages - System Expansion
Date:	Friday, October 7, 2022 1:36:00 PM

### Dear Mayor Brose,

It was very nice speaking with you yesterday. As promised, set out below are some messages you can pass along regarding future opportunities now that natural gas is in closer proximity. Please let me know if this is along the lines of what you are looking? Please do let me know if there is anything else you need! I'm just a text/call away.

- The scope for this project has limitations, and one factor is the amount of governmentapproved funding available for the project through the natural gas expansion program.
- When designing projects, we do our best to plan a route that allows us to offer access to natural gas to as many area residents as possible.
- Now that natural gas is expanding to an area in closer proximity to you, there may be potential for your address to be included in future community expansion or regional expansion work, both funded through the approved expansion surcharge (\$0.23/m3 volumetric charge, applied for a maximum of 40 years).
- Our regional expansion team explores opportunities to connect potential customers to our system going after a community expansion project is complete.
- The team will evaluate the potential extension and its feasibility with a number of scenarios. Confirmed interest in connecting to natural gas can assist the team with this type of work.
- To express your interest in connecting to natural gas, please respond to <u>ceapplications@enbridge.com</u> with your contact information.
- If you believe your neighbours would also be interested in connecting to natural gas, please share this information with them as well.

Have a lovely thanksgiving weekend! Sonia

### Sonia Fazari

Sr. Advisor, Municipal and Stakeholder Engagement, Eastern Region Public Affairs and Communications

**ENBRIDGE GAS INC.** TEL: 416-753-6962 | CELL: 416-525-2497 500 Consumers Road North York, ON M2J 1P8

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From:	<u>Clerk</u>
То:	Kendra Black
Subject:	[External] Re: Enbridge Gas Expansion - Follow Up meeting
Date:	Tuesday, May 9, 2023 8:53:35 AM

### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Good morning Kendra

Our team is available to meet on Monday May 15th at 1:30 pm.

Thanks.

Michelle Mantifel Clerk-Treasurer

Sent from my Bell Samsung device over Canada's largest network.

From: Kendra Black <Kendra.Black@enbridge.com>
Sent: Monday, April 24, 2023 3:34:11 PM
To: Clerk <clerk@nalgonawil.com>
Subject: FW: Enbridge Gas Expansion - Follow Up meeting

Good afternoon Michelle,

I hope you are keeping well. I'm writing today with hopes to confirm a team with your team members and Mayor Brose regarding the natural gas expansion project, as mentioned below by Sonia. I'm checking in to see if you have availability on May 15 in the afternoon, or on May 16, instead of May 8 as noted below? Our team will be travelling to the area and would welcome the opportunity to meet to discuss the proposed project.

Many thanks, Kendra

-----Original Message-----From: Clerk <clerk@nalgonawil.com> Sent: Thursday, April 13, 2023 1:55 PM To: Sonia Fazari <Sonia.Fazari@enbridge.com> Subject: [External] RE: Enbridge Gas Expansion - Follow Up meeting

CAUTION! EXTERNAL SENDERWere you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate?DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Hi Sonia

Our team members and Mayor Brose are available on May 8th to meet with your project team.

Afternoon is preferred.

Thanks.

Michelle Mantifel Clerk-Treasurer

-----Original Message-----From: Sonia Fazari </br>

Sonia Fazari 
Sonia.Fazari@enbridge.com>

Sent: April 11, 2023 10:38 AM

To: Clerk 
clerk@nalgonawil.com>

Subject: RE: Enbridge Gas Expansion - Follow Up meeting

Many thanks, Michelle!

Sonia Fazari

Sr. Advisor, Municipal and Stakeholder Engagement, Eastern Region Public Affairs and Communications

ENBRIDGE GAS INC. TEL: 416-753-6962 | CELL: 416-525-2497 500 Consumers Road North York, ON M2J 1P8

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-----Original Message-----From: Clerk <clerk@nalgonawil.com> Sent: Tuesday, April 11, 2023 10:02 AM To: Sonia Fazari <Sonia.Fazari@enbridge.com>; James Brose <jbrose@nalgonawil.com> Cc: Sara Alhasan <sara.alhasan@enbridge.com>; Kendra Black <Kendra.Black@enbridge.com> Subject: [External] RE: Enbridge Gas Expansion - Follow Up meeting

CAUTION! EXTERNAL SENDERWere you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate?DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Good Morning Sonia

I have provided the two dates to our team to see if they are available.

Will follow up later this week.

Thanks.

Michelle Mantifel Clerk-Treasurer Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-2, Attachment 1, Page 20 of 43 Township of North Algona Wilberforce

-----Original Message-----From: Sonia Fazari <Sonia.Fazari@enbridge.com> Sent: April 10, 2023 1:05 PM To: James Brose <jbrose@nalgonawil.com>; Clerk <clerk@nalgonawil.com> Cc: Sara Alhasan <sara.alhasan@enbridge.com>; Kendra Black <Kendra.Black@enbridge.com> Subject: FW: Enbridge Gas Expansion - Follow Up meeting

Good afternoon Mayor Brose and Michelle,

How are you? I trust you both had a lovely Easter weekend!

As a follow up to our last touchpoint, the project team is wondering if May 8th OR May 15th works on your end to meet with the Township of North Algona Wilberforce to discuss the proposed system expansion project?

I look forward to hearing back from you when you have a moment.

Kind regards Sonia

Sonia Fazari Sr. Advisor, Municipal and Stakeholder Engagement, Eastern Region Public Affairs and Communications

ENBRIDGE GAS INC. TEL: 416-753-6962 | CELL: 416-525-2497 500 Consumers Road North York, ON M2J 1P8

enbridge.com Integrity. Safety. Respect. Inclusion.

From:	<u>Clerk</u>
То:	Kendra Black
Subject:	[External] RE: Proposed gas expansion project   Town of North Algona Wilberforce and Enbridge Gas
Date:	Tuesday, August 29, 2023 2:04:31 PM

## **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Hi Kendra

The request will be included on the September 5<sup>th</sup> Council agenda. We will be able to provide the letter afterwards.

Thanks.

Michelle Mantifel Clerk-Treasurer

From: Kendra Black <Kendra.Black@enbridge.com>
Sent: Wednesday, August 23, 2023 3:04 PM
To: Clerk <clerk@nalgonawil.com>
Subject: RE: Proposed gas expansion project | Town of North Algona Wilberforce and Enbridge Gas

Hi Michelle, I hope you are doing well. We would greatly appreciate a letter if you are able to contribute one. Thank you, Kendra

From: Clerk <<u>clerk@nalgonawil.com</u>>
Sent: Thursday, August 17, 2023 8:35 AM
To: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Subject: [External] RE: Proposed gas expansion project | Town of North Algona Wilberforce and Enbridge Gas

### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe. Hi Kendra

I must apologize, your email was missed when I was off on vacation.

Do you still require the support letter?

Thanks.

Michelle Mantifel Clerk-Treasurer

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Friday, July 21, 2023 2:43 PM
To: Clerk <<u>clerk@nalgonawil.com</u>>
Subject: Proposed gas expansion project | Town of North Algona Wilberforce and Enbridge Gas

Hello Michelle,

I hope you are doing well and enjoying the summer.

I'm connecting today as the team is working toward our leave-to-construct application for the Eganville natural gas expansion project traversing through North Algona Wilberforce. Our leave-to-construction applications, which is to the Ontario Energy Board, are enhanced when we are able to include letters of support from the municipalities.

I wanted to follow up with you on if you and your municipality would provide a letter in support of our application leave-to-construct application (by way of a letter, or an email)? Attached please find a template for your consideration.

Please let me know if you'd like to discuss or have any questions out our ask, or the project.

With thanks,

Kendra

Kendra Black Supervisor, Municipal and Stakeholder Engagement Public Affairs & Communications

ENBRIDGE GAS INC. 416-806-7443 500 Consumers Road, Toronto, ON, M2J 1P8

<u>enbridgegas.com</u> Safety. Integrity. Respect. Inclusion.
From:	Clerk
То:	Kendra Black
Subject:	[External] RE: Proposed gas expansion project   Town of North Algona Wilberforce and Enbridge Gas
Date:	Thursday, September 14, 2023 9:53:20 AM
Attachments:	SKM C364e23091410150.pdf
Subject: Date: Attachments:	[External] RE: Proposed gas expansion project   Town of North Algona Wilberforce and Enbridge Gas Thursday, September 14, 2023 9:53:20 AM <u>SKM_C364e23091410150.pdf</u>

#### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Good Morning Kendra

Attached is the letter of support as requested.

Thanks.

Michelle Mantifel Clerk-Treasurer

From: Kendra Black <Kendra.Black@enbridge.com>
Sent: Wednesday, September 13, 2023 9:52 PM
To: Clerk <clerk@nalgonawil.com>
Subject: Fwd: Proposed gas expansion project | Town of North Algona Wilberforce and Enbridge Gas

Hello Michelle,I hope you're doing well.I'm checking in to see if you have an update on the September 5 meeting re: the system expansion project.Many thanks

From: Clerk <<u>clerk@nalgonawil.com</u>>
Sent: Tuesday, August 29, 2023 2:04 PM
To: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Subject: [External] RE: Proposed gas expansion project | Town of North Algona Wilberforce and Enbridge Gas

#### **CAUTION! EXTERNAL SENDER**

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The request will be included on the September 5<sup>th</sup> Council agenda. We will be able to provide the letter afterwards.

Thanks.

Michelle Mantifel Clerk-Treasurer

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Wednesday, August 23, 2023 3:04 PM
To: Clerk <<u>clerk@nalgonawil.com</u>>
Subject: RE: Proposed gas expansion project | Town of North Algona Wilberforce and Enbridge Gas

Hi Michelle, I hope you are doing well. We would greatly appreciate a letter if you are able to contribute one. Thank you, Kendra Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-2, Attachment 1, Page 25 of 43 Township of North Algona Wilberforce



North Algona Wilberforce Township 1091 Shaw Woods Road RR #1 Eganville, Ontario K0J 1T0

> Tel: 613-628-2080 Fax: 613-628-3341

September 5, 2023

#### Re: Expression of Support for Eganville Community Expansion Project in North Algona Wilberforce Township

Enbridge Gas is preparing a Leave-to-Construct (LTC) application to the Ontario Energy Board (OEB) for the Eganville Community Expansion Project.

This project will provide natural gas access to nearly 674 forecasted customers in the local area over 10 years, which will give area residents a reliable, affordable option for their energy needs.

On behalf of North Algona Wilberforce Township, by way of this letter, I am providing written support for this project, and anticipate it will be included in Enbridge's submission files.

We look forward to working together on this project.

Sincerely,

James Brose Mayor

Township of Bonnechere Valley Correspondence Log



Enbridge Gas Inc. 400 Coventry Road Ottawa, ON K1K 2C7

February 11, 2020

Mayor Jennifer Murphy Township of Bonnechere Valley 49 Bonnechere St. E., P.O. Box 100 Eganville, ON K0J 1T0

Dear Mayor Murphy and Members of Council,

### **Re: Natural Gas Expansion Program Update**

In December 2019, the Government of Ontario announced its plans to further increase access to natural gas by making financial support available for new expansion projects. The Government's Natural Gas Expansion Program offers an opportunity to drive economic development and enhance the quality of life and prosperity of families and businesses across Ontario. As your Regional Director for Enbridge Gas Inc., I'm writing to provide an update on next steps, and how we can work together to bring natural gas to unserved communities in Ontario.

Enbridge Gas will submit project proposals to the Ontario Energy Board (OEB) based on Guidelines that are currently under development. The OEB will review project submissions and provide a report to the Ministry of Energy, Northern Development and Mines later this year recommending potential natural gas expansion projects that the Ontario government could consider as candidates for financial support. The Ministry of Energy, Northern Development and Mines will review the recommendations of the OEB along with other considerations and issue a decision on future natural gas expansion projects eligible to receive financial support.

Your municipality expressed interest in the 2017 Natural Gas Grant Program and may have a project that you would like to submit for consideration as part of the current Natural Gas Expansion Program. The Guidelines to be issued by the OEB are expected to indicate that project submissions will require certain information to be provided to be considered complete – a summary of expected submission requirements is included with this letter. We ask that you confirm your interest to bring natural gas to your municipality by providing a letter of support returned to us within 10-15 business days of receiving this letter. A sample letter of support is also included for your consideration.

For more than 170 years, Enbridge Gas has been delivering the energy that Ontarians need and want. With our long history, anchored in our commitment to operational excellence and strong safety performance, Enbridge Gas is in the best position to bring natural gas to currently unserved areas. We have a number of expansion projects underway, and we are committed to building on this success. If you have any questions, please do not hesitate to contact me or your Municipal Advisor, Sonia Fazari, at Sonia.fazari@enbridge.com.

Sincerely,

lan Ross Director, Eastern Region Operations Enbridge Gas Inc. 613-748-6810



Enbridge 500 Consumers Road North York, Ontario M2J 1P8 Canada

June 7, 2021

Dear Mayor Murphy and Members of Council,

#### Re: Natural Gas Expansion Program

Recently, the Government of Ontario announced the projects that are eligible for funding assistance under its Natural Gas Expansion Program. We are pleased that our project to make natural gas service accessible to the Eganville area has been approved for funding assistance.

Enbridge Gas can now proceed with the steps required to expand access to natural gas to the Eganville area of Bonnechere Valley, which may include Leave to Construct or other regulatory approvals from the Ontario Energy Board (OEB). Program funding is conditional upon the project receiving OEB approvals and construction of the new natural gas infrastructure cannot begin until this approval is received.

Once Enbridge Gas receives the required regulatory approval, we will be able to provide more detail on construction timelines, the processes to connect homes and businesses to natural gas, and what residents and businesses can do to prepare. We will keep you apprised as the regulatory approvals and project scope are finalized.

Enbridge Gas has been meeting Ontario's energy needs for more than 170 years and we look forward to bringing access to natural gas to new areas across Ontario. Our customers count on us to deliver clean, reliable and affordable natural gas, and we are proud to deliver on this commitment. Our work to expand access to natural gas will continue – so too will our exploration of other alternative energy solutions, such as renewable natural gas, hydrogen blending and geothermal energy, as pathways to lower-cost, clean and reliable energy options for Ontarians.

We look forward to working together and collaborating on next steps. In the meantime, please do not hesitate to contact me, or your municipal advisor, if you have any questions.

Sincerely,

1

Jean-Benoit Trahan Director, Eastern Region Operations Enbridge Gas Inc. Jean-Benoit.Trahan@enbridge.com 819-776-8876

CC: Sonia Fazari, Sr. Municipal Advisor, Sonia.Fazari@enbridge.com

From:	Sonia Fazari		
То:	jenniferm@eganville.com; brentp@eganville.com; tims@eganville.com; mervb@eganville.com; jackr@eganville.com		
Cc:	Annette Gilchrist		
Subject:	Update - Township of Bonnechere Valley Project Notice of Commencement		
Date:	Tuesday, September 13, 2022 11:47:29 PM		
Attachments:	<u>ad 16095306-Eganville 20220901.pdf</u> 160951306 Fig1 StudyArea 20220826.pdf		

Dear Mayor Murphy and Members of Council,

I trust you are all doing well! I am reaching out to provide you with some advance notice regarding the Notice of Commencement of the Natural Gas System Expansion Project. Please find attached a copy of the Notice of Commencement ad insert and associated project map that will be published in the Eganville Leader on September 14 and September 21<sup>st</sup>.

We are also planning to hold a Virtual Open House on **September 26, 2022** to **October 9, 2022** at <u>https://solutions.ca/EganvilleEA/</u>. This virtual open house information is also being advertised in the Notice of Commencement.

In the event some of the community residents are not able to log onto the VOH, we would like to have a copies of the open house virtual story boards (in the form of a slide deck) available at the municipal office for members of the community to take home and review at their leisure.

The Notice of Commencement information will also be shared with the Township of North Algona Wilberforce and the Township of Admaston/Bromley for their awareness and information.

As always, please don't hesitate to reach out with any questions you may have. I am planning to be at the Ontario East Municipal Conference in Cornwall on Sept 14 and 15<sup>th</sup> but will be reachable on my cell at 416-525-2497 if there is anything you need!

Kind regards, Sonia

#### Sonia Fazari

Sr. Advisor, Municipal and Stakeholder Engagement, Eastern Region Public Affairs and Communications

**ENBRIDGE GAS INC.** TEL: 416-753-6962 | CELL: 416-525-2497 500 Consumers Road North York, ON M2J 1P8

<u>enbridge.com</u> Integrity. Safety. Respect. Inclusion.

# Enbridge Gas Inc. Notice of Study Commencement and Virtual Open House Eganville Community Expansion Project

Enbridge Gas Inc. (Enbridge Gas) is proposing to construct the Eganville Community Expansion Project to provide affordable natural gas to the community of Eganville (The Project). The Project will include the construction of new natural gas pipelines to transport natural gas supply from Snake River Line to new distribution system pipelines in Eganville, and distribute natural gas to residential, commercial and industrial customers in Eganville, and along the supply lateral, which is proposed to span the Townships of Admaston/Bromley, Bonnechere Valley, and North Algona Wilberforce.

The Project consists of a supply lateral of approximately 21 kilometers (km) of a combination of 4-inch steel and of 6- and 8-inch polyethylene (PE), a distribution system of up to 22 km of a combination of 6-inch, 4- inch and 2-inch PE pipeline, and a pressure reducing station along the supply lateral. The supply lateral is proposed to be in service by 2024 with the distribution pipelines proposed to be in service as early as 2025. The preliminary preferred or alternative routes and ancillary facilities have been developed for purposes of an assessment of potential environmental and socioeconomic impacts and does not represent the final project scope/design that will provide access to natural gas to end-use customers.



The Project is planned to be within the existing

municipal Right-of-Way (RoW) with the potential for permanent easements, Temporary Working Space (TWS) and laydown areas.

As part of the planning process, Enbridge Gas has retained Stantec Consulting Ltd. (Stantec) to undertake an Environmental Study for the Project. The Environmental Study will fulfill the requirements of the Ontario Energy Board's (OEB) "Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition (2016)". It is anticipated that the Environmental Report for the study will be completed in October 2022 after which Enbridge Gas may file an application for the Project to the OEB. The OEB's review and approval is required before the proposed Project can proceed. Construction is currently anticipated to begin in Q4 of 2023.

Consultation and engagement with Indigenous communities, landowners, government agencies, and other interested persons is an integral component of the planning process. As a result of the on-going COVID-19 pandemic, a Virtual Open House will be held in place of an in-person Open House and hard copies of the materials will be available for review in the community (see below)

# The Virtual Open House will be available for two weeks starting on September 26, 2022, and finishing on October 9 2022, at <a href="https://www.solutions.ca/EganvilleEA/">https://www.solutions.ca/EganvilleEA/</a>

If you are unable to log onto the Virtual Open House between **September 26 to October 9**, hard copies of the Open House Materials will be available for in-person viewing at the following locations:

- Township of Bonnechere Valley, 49 Bonnechere Street, Eganville (Municipal Office)
- Township of Admaston/Bromley, 477 Stone Road, R.R.2, Renfrew (Municipal Office)
- North Algona Wilberforce Township, 1091 Shaw Woods Road, Eganville (Municipal Office)

#### For any questions or comments regarding the proposed Eganville Community Expansion Project, please reach out to:

Laura Hill, Environmental Scientist Stantec Consulting Ltd. **Telephone:** 613-784-2256 **Email:** EganvilleEA@stantec.com



Or visit the project website at: https://www.Enbridgegas.com/EganvilleProject

Township of Bonnechere Valley



From:	Annette Gilchrist
То:	Kendra Black
Cc:	Daryl Verch; Jason Zohr; Bruce Howarth
Subject:	[External] RE: Proposed gas expansion project   Bonnechere Valley and Enbridge Gas
Date:	Thursday, May 25, 2023 2:04:19 PM

#### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

Just circling back to this now. My notes indicate the following:

Enbridge will get the Township the Drawings for our project location (as built to follow installation)

Enbridge to send us manual for working around pipes and information sharing agreements for third parties.

Enbridge to send an email to Bruce regarding the Bridge as this is an upper tier structure.

Township to send to Enbridge force main drawings from infrastructure on the Mill Street bridge, under the water and down John Street

That all I have in my notes.

Annette Gilchrist, CMO, AOMC CAO/Clerk/Treasurer Township of Bonnechere Valley PO Box 100 Eganville ON KOJ 1T0 Tel 613-628-3101 Ext. 222 Fax 613-628-1336

From: Annette Gilchrist

**Sent:** Monday, May 15, 2023 9:37 AM

To: Kendra Black <Kendra.Black@enbridge.com>

**Cc:** Daryl Verch <darylv@eganville.com>; Jason Zohr <jasonz@eganville.com>; Bruce Howarth <BHowarth@countyofrenfrew.on.ca>

Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Are you all coming to the Council chambers today?

Bruce do you need a zoom meeting?

See you all shortly.

Annette

From: Annette Gilchrist
Sent: Wednesday, May 10, 2023 2:05 PM
To: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
<<u>BHowarth@countyofrenfrew.on.ca</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Ok great. It will be at our Township Office in the Council Chambers in Eganville. 149 Bonnechere Street East.

See you then.,

Annette Gilchrist, CMO, AOMC CAO/Clerk/Treasurer Township of Bonnechere Valley PO Box 100 Eganville ON KOJ 1T0 Tel 613-628-3101 Ext. 222 Fax 613-628-1336

From: Kendra Black <Kendra.Black@enbridge.com>
Sent: Wednesday, May 10, 2023 2:03 PM
To: Annette Gilchrist <annetteg@eganville.com>
Cc: Daryl Verch <darylv@eganville.com>; Jason Zohr <jasonz@eganville.com>; Bruce Howarth
<BHowarth@countyofrenfrew.on.ca>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

In person.

From: Annette Gilchrist <annetteg@eganville.com>
Sent: Wednesday, May 10, 2023 8:59 AM
To: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
<<u>BHowarth@countyofrenfrew.on.ca</u>>

Subject: [External] RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

#### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe. Will you be attending in person or by zoom?

Annette

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Tuesday, May 09, 2023 4:28 PM
To: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
<<u>BHowarth@countyofrenfrew.on.ca</u>>

Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Hi Annette

Could you please provide me with the address/meeting location details?

I will update the appointment notice.

Thank you,

Kendra

From: Annette Gilchrist <<u>annetteg@eganville.com</u>>

Sent: Friday, April 28, 2023 9:05 AM

To: Kendra Black < Kendra.Black@enbridge.com >

**Cc:** Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth <<u>BHowarth@countyofrenfrew.on.ca</u>>

Subject: [External] RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

#### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

It will be our water and sewer manager and public works manager and county of Renfrew manager of planning. I have cc'd them hereto.

Annette

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Friday, April 28, 2023 9:02 AM
To: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Thanks, Annette!

Could you please let me know who from your side will be joining so I can prepare the team?

Many thanks, Kendra

----Original Appointment----From: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Sent: Friday, April 28, 2023 8:32 AM
To: Kendra Black
Subject: [External] Accepted: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas
When: Monday, May 15, 2023 10:05 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Township of Bonnechere Valley

#### **CAUTION! EXTERNAL SENDER**

Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

From:	Annette Gilchrist
То:	Kendra Black
Subject:	[External] RE: Proposed gas expansion project   Bonnechere Valley and Enbridge Gas
Date:	Thursday, August 24, 2023 2:36:16 PM
Attachments:	2023-08-08 Enbridge.doc

#### **CAUTION! EXTERNAL SENDER**

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Here is the updated one.

Thank you

Annette

From: Annette Gilchrist
Sent: Tuesday, August 08, 2023 3:49 PM
To: Kendra Black <Kendra.Black@enbridge.com>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Here you go.

Annette Gilchrist, CMO, AOMC CAO/Clerk/Treasurer Township of Bonnechere Valley PO Box 100 Eganville ON KOJ 1T0 Tel 613-628-3101 Ext. 222 Fax 613-628-1336

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Monday, July 31, 2023 10:58 AM
To: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Many thanks, Annette.

From: Annette Gilchrist <<u>annetteg@eganville.com</u>> Sent: Monday, July 31, 2023 10:44 AM To: Kendra Black <<u>Kendra.Black@enbridge.com</u>> Subject: [External] RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

**CAUTION! EXTERNAL SENDER** Were you expecting this email? TAKE A CLOSER LOOK. Is the sender legitimate? DO NOT click links or open attachments unless you are 100% sure that the email is safe.

I will add to our August 8<sup>th</sup> Council meeting

Annette

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Friday, July 21, 2023 2:31 PM
To: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Hello Annette,

I hope you are doing well and enjoying the summer.

I'm connecting today as the team is working toward our leave-to-construct application for the natural gas expansion project serving Bonnechere Valley. Our leave-to-construction applications, which is to the Ontario Energy Board, are enhanced when we are able to include letters of support from the municipalities.

A letter of support was provided by the Township of Bonnechere Valley in 2020 as part of our support submission (attached). I wanted to follow up with you on if would provide a letter in support of our application leave-to-construct application (by way of a letter, or an email). Attached please find a template for your consideration.

Please let me know if you'd like to discuss or have any questions out our ask, or the project.

With thanks,

Kendra

From: Annette Gilchrist <<u>annetteg@eganville.com</u>>

Sent: Thursday, May 25, 2023 2:04 PM

To: Kendra Black < Kendra.Black@enbridge.com >

**Cc:** Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth <<u>BHowarth@countvofrenfrew.on.ca</u>>

Subject: [External] RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

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Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
<<u>BHowarth@countyofrenfrew.on.ca</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

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Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
<<u>BHowarth@countyofrenfrew.on.ca</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Ok great. It will be at our Township Office in the Council Chambers in Eganville. 149 Bonnechere Street East.

See you then.,

Annette Gilchrist, CMO, AOMC CAO/Clerk/Treasurer Township of Bonnechere Valley PO Box 100 Eganville ON KOJ 1T0 Tel 613-628-3101 Ext. 222 Fax 613-628-1336

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To: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
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Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

In person.

From: Annette Gilchrist <<u>annetteg@eganville.com</u>>
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To: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
<<u>BHowarth@countyofrenfrew.on.ca</u>>
Subject: [External] RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

#### **CAUTION! EXTERNAL SENDER**

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#### Annette

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Tuesday, May 09, 2023 4:28 PM
To: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Cc: Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth
<<u>BHowarth@countyofrenfrew.on.ca</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Hi Annette

Could you please provide me with the address/meeting location details? I will update the appointment notice. Thank you, Kendra

From: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Sent: Friday, April 28, 2023 9:05 AM

**To:** Kendra Black <<u>Kendra.Black@enbridge.com</u>>

**Cc:** Daryl Verch <<u>darylv@eganville.com</u>>; Jason Zohr <<u>jasonz@eganville.com</u>>; Bruce Howarth <<u>BHowarth@countyofrenfrew.on.ca</u>>

Subject: [External] RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

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It will be our water and sewer manager and public works manager and county of Renfrew manager of planning. I have cc'd them hereto.

Annette

From: Kendra Black <<u>Kendra.Black@enbridge.com</u>>
Sent: Friday, April 28, 2023 9:02 AM
To: Annette Gilchrist <<u>annetteg@eganville.com</u>>
Subject: RE: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas

Thanks, Annette! Could you please let me know who from your side will be joining so I can prepare the team? Many thanks, Kendra

-----Original Appointment-----**From:** Annette Gilchrist <<u>annetteg@eganville.com</u>> Sent: Friday, April 28, 2023 8:32 AM
To: Kendra Black
Subject: [External] Accepted: Proposed gas expansion project | Bonnechere Valley and Enbridge Gas
When: Monday, May 15, 2023 10:05 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Township of Bonnechere Valley

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# The Corporation of the Township of Bonnechere Valley

49 Bonnechere Street East P.O. Box 100 Eganville, Ontario K0J 1T0



Phone (613) 628-3101 Fax (613) 628-1336 admin@eganville.com

August 8, 2023

To Whom it May Concern:

Re: Expression of Support for Eganville Community Expansion Project in the Township of Bonnechere Valley

Enbridge Gas is preparing a Leave-to-Construct (LTC) application to the Ontario Energy Board (OEB) for the Eganville Community Expansion Project.

This project will provide natural gas access to nearly 674 forecasted customers in our community over 10 years, which will give area residents a reliable, affordable option for their energy needs.

On behalf of the Township of Bonnechere Valley, by way of this letter, I am providing written support for this project, and anticipate it will be included in Enbridge's submission files.

We look forward to working together on this project. Sincerely,

annette Gilchrist

Annette Gilchrist, CMO, AOMC CAO, Township of Bonnechere Valley

# **Municipal Engagement – Consultation Log**

Towns	Township of Admaston/Bromley				
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Engagement Activity	Summary of Community's Engagement Activity	Issues or Concerns raised and how addressed by Enbridge Gas including any substantive Attachments
1	February 20, 2020	Email	Enbridge Gas representative reached out to Mayor to invite an expression of interest for a proposed project.		
2	April 25, 2022	Meeting	Enbridge Gas representatives met Township and presented project scope.		
3	May 19, 2022	Meeting	Enbridge Gas representative presented a project overview to the Township		
4	July 26, 2022	Email		Admaston/Bromley Representative expressed concern over road damage on McGaghran Rd.	Damaged portion of the road was re-paved.
5	September 14, 2022	Email	Enbridge Gas representative issued notice of Commencement of Study to Mayor, Council and Township CAO.		
6	May 30, 2023	Email	Enbridge Gas representative shared draft drawings to review for potential concerns.		
7	July 21, 2023	Email	Enbridge Gas representative reached out to provide a Project update and request an updated letter of support in advance of the LTC filing		

8	July 24, 2023	Email		Township staff representative requested additional details on the LTC.	
9	July 24, 2023	Email	Enbridge Gas representative provided details on the LTC application and process and Project details.		
10	August 4, 2023	Email		Township staff provided a letter of support for the Project.	
11	October 16, 2023	Meeting	Enbridge Gas representatives met Township to discuss design.		
12	October 27, 2023	Email	Enbridge Gas representative reached out to Third Party Geotechnical Consultant and Admaston/Bromley representative to alleviate a test well cap issue.		Test well caps were above grade in two locations, the caps were lowered to be flush with the road.

Town	Township of North-Algona Wilberforce				
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Engagement Activity	Summary of Community's Engagement Activity	Issues or Concerns raised and how addressed by Enbridge Gas including any substantive Attachments
13	February 20, 2020	Email	Enbridge Gas representative reached out to Mayor to invite an expression of interest for a proposed project.		
14	April 28, 2022	Meeting	Enbridge Gas representatives met with Township to discuss design considerations and path forward.		
15	May 3, 2022	Email	Enbridge Gas representative shared documentation following a project overview meeting.		

16	May 17, 2022	Meeting	Enbridge Gas representative presented a project overview to the Township		
17	September 14, 2022	Email	Enbridge Gas representative issued notice of Commencement of Study to Mayor, Council and		
18	October 7, 2022	Email	Enbridge Gas responded to questions from Mayor Brose regarding the project.		
19	April 24, 2023	Email	Enbridge Gas representative reached out to provide a Project update and request an updated letter of support in advance of the LTC filing.		
20	May 15, 2023	Meeting	Enbridge Gas representatives and Township staff and elected officials met to discuss the Project.		
21	July 21, 2023	Email	Enbridge Gas representative reached out to provide a Project update and request an updated letter of support in advance of the LTC filing.		
22	May 29, 2023	Email	Enbridge Gas representative shared draft drawings to review for potential concerns.		
23	August 21, 2023	Email		North-Algona Wilberforce Third Party Consultant reviewed draft drawings and provided comments on behalf of Municipality.	
24	August 29, 2023	Email		Township staff provided an update that the Project would be added to the September 5 council agenda.	
25	September 13, 2023	Email	Enbridge Gas followed up regarding the letter of support.		

26	September 14, 2023	Email		Township staff provided a letter of support for the Project.	
27	October 17, 2023	Meeting	Enbridge Gas representatives met with Township to discuss design.		

Towr	Township of Bonnechere Valley				
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Engagement Activity	Summary of Community's Engagement Activity	Issues or Concerns raised and how addressed by Enbridge Gas including any substantive Attachments
28	February 20, 2020	Email	Enbridge Gas representative reached out to Mayor to invite an expression of interest for a proposed project.		
29	July 17, 2020	Email		The Township provided a letter expressing support for natural gas expansion to the village of Eganville.	
30	June 9, 2021	Email	Enbridge Gas reached out to Mayor and Council to advise of NGEP Phase 2 project selection.		
31	April 13, 2022	Meeting	Enbridge Gas representatives met with Township to present project scope and discuss Enbridge design standards.		
32	April 19, 2022	Meeting	Enbridge Gas representative presented a delegation to council.		
33	June 15, 2022	Meeting	Enbridge Gas representatives met with Township to discuss river crossing locations.		
34	September 13, 2022	Email	Enbridge Gas representative issued notice of Commencement of Study		

			to Mayor, Council and Township CAO.		
35	May 15, 2023	Meeting	Enbridge Gas representatives met with staff regarding the Project.		
36	May 25, 2023	Email		Township staff provided a summary of meeting takeaways and outcomes.	
37	May 29, 2023	Email	Enbridge Gas representative shared draft drawings to review for potential concerns.		
38	June 20,2023	Email		Township submitted their drawing comments.	Comments were addressed July 17 <sup>th</sup> , 2023
39	July 21, 2023	Email	Enbridge Gas representative reached out to provide a Project update and request an updated letter of support in advance of the LTC filing.		
40	July 31, 2023	Email	<u> </u>	Township staff provided an update that the Project would be added to the August 8 council agenda.	
41	August 8, 2023	Email		Township staff provided a letter of support for the Project.	
42	October 17, 2023	Meeting	Enbridge Gas representatives met with Township to discuss design.		

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-3 Page 1 of 4

### ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1

#### Question(s):

- a) Please complete the complete the table below to confirm which of the following facts were communicated to the Township of Bonnechere Valley (and for any that were communicated, please provide the communication including a pinpoint reference to where that fact is contained).
- b) Please replicate and complete the same table for each of the Township of Admaston/Bromley and the Township of North-Algona Wilberforce. Please also provide the communication, including a pinpoint reference to where that fact is contained, for any of the facts that were communicated.

	Information Communicated to the Township of Bonnechere Valley					
Information		Whether communicated to the Municipality (Y/N)	If no, why not; if yes, where & when			
(i)	That the federal government is offering \$5,000 rebates for customers to switch to high- efficiency electric heat pumps, which are not available for gas furnaces. <sup>1</sup>					
(ii)	That the federal government is offering an <i>additional</i> \$5,000 in rebates for customers to switch from oil to high-efficiency electric heat pumps if they earn a median income or lower (e.g. \$122,000 after-tax income for a family of 4 in Ontario) through the Oil to Heat Pump Affordability Program. <sup>2</sup>					

<sup>&</sup>lt;sup>1</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

<sup>&</sup>lt;sup>2</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

(iii)	That the federal government is now providing up to \$40,000 in interest free loans, which can be put towards conversions to electric heat pumps, and not gas equipment, through the Greener Homes Loan. <sup>3</sup>	
(iv)	That heat pumps could save a customer approximately \$1,200 in annual heating costs versus a gas furnace for a house with a moderate heat load (or whatever Enbridge's estimated savings are). <sup>4</sup>	
(v)	That Enbridge may charge customers for a connection depending on the distance of the building from the road.	
(vi)	That heat pumps result in lower annual energy costs compared to traditional gas equipment for home heating	
(vii)	That heat pumps significantly reduce summer cooling costs.	
(viii)	That natural gas is a potent greenhouse gas and its combustion generates approximately 1/3 <sup>rd</sup> of Ontario's greenhouse gas emissions. <sup>5</sup>	
(ix)	That heat pumps result in far less greenhouse gas emissions than gas furnaces. <sup>6</sup>	

#### Response:

#### a - b)

The "facts/statements" provided by ED within the interrogatory are oversimplifications, inaccurate, and/or omit other important considerations and therefore could be misleading. For example, ED identifies annual operating costs of electric heat pumps and the rebates available to offset upfront capital costs of electric heat pumps but ignores information regarding upfront capital costs of electric heat pumps. As with any capital investment, upfront capital costs are an important consideration, not just annual operating costs. Enbridge Gas does not necessarily accept the statements made by ED as complete/accurate representations of the information.

<sup>5</sup> EB-2022-0249, Exhibit I.ED.5.

<sup>&</sup>lt;sup>3</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

<sup>&</sup>lt;sup>4</sup> EB-2022-0249, Exhibit I.ED.16, Attachment 7, Ottawa, 4 Ton Heating Load, "Cost savings" row, averaged; EB-2022-0249, Exhibit I.ED.5.

<sup>&</sup>lt;sup>6</sup> Ibid.

Enbridge Gas is not responding to the validity or accuracy of ED's statements and is rather providing responses to the direct questions posed by ED.

Information Communicated to the Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce					
Information		Whether communicated to the Municipality (Y/N)	If no, why not; if yes, where & when		
(i)	That the federal government is offering \$5,000 rebates for customers to switch to high- efficiency electric heat pumps, which are not available for gas furnaces. <sup>7</sup>	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding non-natural gas solutions which the Company cannot provide via the Project.		
(ii)	That the federal government is offering an <i>additional</i> \$5,000 in rebates for customers to switch from oil to high-efficiency electric heat pumps if they earn a median income or lower (e.g. \$122,000 after-tax income for a family of 4 in Ontario) through the Oil to Heat Pump Affordability Program. <sup>8</sup>	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding non-natural gas solutions which the Company cannot provide via the Project.		
(iii)	That the federal government is now providing up to \$40,000 in interest free loans, which can be put towards conversions to electric heat pumps, and not gas equipment, through the Greener Homes Loan. <sup>9</sup>	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding non-natural gas solutions which the Company cannot provide via the Project.		
(iv)	That heat pumps could save a customer approximately \$1,200 in annual heating costs versus a gas furnace for a house with a moderate heat load (or whatever Enbridge's estimated savings are). <sup>10</sup>	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding non-natural gas solutions which the Company cannot provide via the Project.		

<sup>&</sup>lt;sup>7</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

<sup>&</sup>lt;sup>8</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

<sup>&</sup>lt;sup>9</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

<sup>&</sup>lt;sup>10</sup> EB-2022-0249, Exhibit I.ED.16, Attachment 7, Ottawa, 4 Ton Heating Load, "Cost savings" row, averaged; EB-2022-0249, Exhibit I.ED.5.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-3 Page 4 of 4

(v)	That Enbridge may charge customers for a connection depending on the distance of the building from the road.	No	Comprehensive information is readily available on the Enbridge Gas community expansion website, including information regarding the extra length charge under the FAQ section: 'What does it cost to install a natural gas pipeline to connect my home?'. <u>Community Expansion Frequently</u> <u>Asked Questions   Enbridge Gas<sup>11</sup></u>
(vi)	That heat pumps result in lower annual energy costs compared to traditional gas equipment for home heating	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding non-natural gas solutions which the Company cannot provide via the Project.
(vii)	That heat pumps significantly reduce summer cooling costs.	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding non-natural gas solutions which the Company cannot provide via the Project.
(viii)	That natural gas is a potent greenhouse gas and its combustion generates approximately 1/3 <sup>rd</sup> of Ontario's greenhouse gas emissions. <sup>12</sup>	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding Ontario's greenhouse gas emissions.
(ix)	That heat pumps result in far less greenhouse gas emissions than gas furnaces. <sup>13</sup>	No	The Townships of Bonnechere Valley, Admaston/Bromley, and North-Algona Wilberforce did not request information from Enbridge Gas regarding non-natural gas solutions which the Company cannot provide via the Project.

https://www.enbridgegas.com/residential/new-customers/community-expansion/faq
 EB-2022-0249, Exhibit I.ED.5.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-4 Plus Attachments Page 1 of 2

## ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1

#### Question(s):

- a) Please provide all communications to and from the Regional Municipality regarding the project, including all communications to the Regional Municipality describing the benefits (e.g., letters, presentations, etc.).
- b) Please provide a list of all meetings with staff and elected officials from the Regional Municipality and the meeting notes and materials for each.
- c) Please provide a copy of the "Final Guidelines for Potential Projects to Expand Access to Natural Gas Distribution" and the related section 35 letter from the Minister.
- d) The OEB Guidelines referred to above state that applicants must: "Provide letter(s) from the Band Council(s) and/or local government, as applicable, stating support for the project, including details of any commitment to financial support." Was a support letter requested from the Regional Municipality?
- e) If a support letter was not sought from the Regional Municipality, please explain why, including with reference to any documentary support for Enbridge's contention that the Regional Municipality does not count as a "local government" within the meaning of the Guidelines

#### Response:

#### a - b)

Please see Attachment 1 to this response for a list of planning engagements with Renfrew County.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-4 Plus Attachments Page 2 of 2

c) The "Final Guidelines for Potential Projects to Expand Access to Natural Gas Distribution"<sup>1</sup> report prepared by the OEB can be found at Attachment 2 to this response. The related Section 35 letter from the Minister<sup>2</sup> is included at Attachment 3 to this response.

d - e)

The OEB Guidelines stated that support letters would be considered by the OEB when reviewing projects. A letter in support of the submission was requested from the Township of Bonnechere Valley, the Township of North Algoma Wilberforce and the Township of Admaston/Bromley when preparing the Natural Gas Expansion Program submission for the Eganville Project.

Enbridge Gas's focus was on receiving a letter of support from the lower-tier municipalities and did not request a support letter from Renfrew County when preparing the Natural Gas Expansion Program submission for the Eganville Project. Enbridge Gas has been working with Renfrew County to discuss the proposed project's design plans, installation requirements and municipal consent.

Please see Attachments 2 to 5 to Exhibit B, Tab 1, Schedule 1 for the letters of support received from the Townships of Bonnechere Valley, Admaston/Bromley and North Algona Wilberforce for the Project.

<sup>&</sup>lt;sup>1</sup> <u>https://www.oeb.ca/sites/default/files/ltr-final-guidelines-gas-expansion-20200305.pdf</u>

<sup>&</sup>lt;sup>2</sup> <u>https://www.oeb.ca/sites/default/files/Letter-to-OEB-natural-gas-expansion-20191212.pdf</u>

# **Municipal Engagement – Planning Consultation Log**

Renfrew County					
Line Item	Date	Method	Summary of Enbridge Gas Inc. ("Enbridge Gas") Engagement Activity	Summary of Community's Engagement Activity	Issues or Concerns raised and how addressed by Enbridge Gas including any substantive Attachments
	April 19, 2022	Meeting	Enbridge Gas Representatives met County and presented project scope		
	May 29, 2023	Email	Enbridge Gas Representative shared draft drawings to review		
	June 6, 2023	Meeting	Enbridge Gas Representative hosted a virtual meeting with County to discuss design		
	June 9, 2023	Email		County submitted their drawing comments	Comments were addressed June 14 <sup>th</sup> , 2023
	October 27, 2023	Email	Enbridge Gas Representative shared draft drawings to review		
	November 17, 2023	Email		Township submitted their drawing comments	Comments were addressed December 14 <sup>th</sup> , 2023



### **BY E-MAIL AND WEB POSTING**

March 5, 2020

- TO: All Participants in the Consultation on the Draft Guidelines for Potential Projects to Expand Access to Natural Gas All Other Interested Parties
- RE: Potential Projects to Expand Access to Natural Gas Distribution Ontario Energy Board File No. EB-2019-0255

The Ontario Energy Board (OEB) has today issued its Final Guidelines for Potential Projects to Expand Access to Natural Gas Distribution (Final Guidelines), which are attached as Appendix A to this letter. The Final Guidelines have been informed by and benefitted from stakeholder comments on the Draft Guidelines for Potential Projects to Expand Access to Natural Gas Distribution (Draft Guidelines) that were issued for comment on December 19, 2019.

Interested project proponents that wish to file project information for inclusion in the OEB's report to the Ministry of Energy, Northern Development and Mines (Ministry) must do so by June 3, 2020 in accordance with the Final Guidelines.

On December 12, 2019, the OEB received a <u>letter</u> (Section 35 Letter) from the Minister of Energy, Northern Development and Mines and the Associate Minister of Energy under section 35 of the *Ontario Energy Board Act, 1998* (OEB Act) asking the OEB to collect and analyze information about possible natural gas expansion projects with a focus on assessing whether the projects can be implemented substantially as proposed. The OEB is expected to report back to the Ministry by August 31, 2020 (Report), and this Report will serve as an input to assist the government in making a determination on future expansion projects.

The Section 35 Letter also expresses the government's intention to further increase access to natural gas by making additional new projects eligible for ratepayer funded financial support totaling approximately \$130 million, using the mechanism set out in Ontario Regulation 24/19, Expansion of Natural Gas Distribution Systems made under section 36.2 of the OEB Act. Changes to that Regulation will be required to enable the provision of ratepayer-funded financial support for any such projects.

-2-

Ontario Energy Board EB-2019-0255

The Section 35 Letter identifies the following as matters to be considered by the OEB in undertaking this initiative:

- The number of customers (in terms of customer count, volume of gas to be distributed and customer type) that would be connected by each proposed project.
- The total cost of each proposed project, as well as the dollar amount of support needed for each proposed project to meet the OEB's profitability threshold.
- The proposed construction start date and construction period for each proposed project, as the provincial government's focus is on projects that can reasonably be expected to start construction by 2023, allowance being made for the timelines typically applicable to the process of obtaining regulatory approvals.
- The project proponent's demonstrated experience, technical expertise and financial ability to build and operate a natural gas distribution system.
- Support for the proposed project from Band Council(s) and/or local government, as applicable, demonstrated through a written expression of support and/or a commitment to financial support.
- If a proposed project is in an area where a Certificate of Public Convenience and Necessity (Certificate) exists, the proponent must be the Certificate holder unless the Certificate holder does not propose a project for the area.
- The extent to which the project proponent expects that the proposed project would reduce the household energy cost burden in the project area.

As set out in the Section 35 Letter, the OEB is expected to apply its expertise in undertaking this initiative. Given the focus on assessing whether potential projects can be implemented substantially as proposed, the following are the key additional considerations that are included in the Final Guidelines, some of which have been revised relative to the Draft Guidelines in response to stakeholder comments:

- A ten-year rate stability period for each proposed project in order to demonstrate, as required by the Section 35 Letter, a commitment to be held to the project costs and volume forecast set out in the project information provided to the OEB.
- A schedule for applying for any OEB approvals and identification of the date by which each is required in order to meet the proposed in-service date.
- The estimated annual distribution charges that are expected to be borne by residential customers to be connected by each proposed project.
- The estimated revenue requirement over the ten-year rate stability period and the capital costs and rate base at the end of the rate stability period.

## **OEB Consideration of Stakeholder Comments**

Twenty-one stakeholders submitted comments in response to the OEB's December 19, 2019 letter, including natural gas distributors, compressed natural gas (CNG) and liquefied natural gas (LNG) service providers, ratepayer groups, industry associations, environmental groups and groups representing Indigenous peoples. Most stakeholders submitted comments on the Draft Guidelines, with relatively few comments submitted on the three additional issues on which the OEB also invited comment in that letter:

- The sufficiency of the 90-day window to submit project information.
- Confidentiality of information that may be contained in project information filed by interested project proponents based on the Draft Guidelines.
- Two alternative options for addressing the requirement in the Section 35 Letter that a proponent must be the holder of the Certificate unless the Certificate holder does not propose a project for the area.

Below is an overview of the many issues raised in the stakeholder comments, and the OEB's consideration of them. In considering stakeholder comments, the OEB has been mindful that the intention underlying the Section 35 Letter is to facilitate access to natural gas distribution systems for communities that are not currently connected to such a system. The OEB has also been mindful that its Report is expected to be provided to the Ministry by August 31, 2020, and that minimizing regulatory burden for stakeholders is a focus of the Government.
-4-

Ontario Energy Board EB-2019-0255

## **Comments on the Draft Guidelines**

## **General Comments**

A number of stakeholders provided comments on the general approach to be taken by the OEB in response to the Section 35 Letter.

One stakeholder stated that, in addition to giving consideration to the benefits of converting from existing heating and hot water systems to natural gas, potential harm should be considered as well (including, for example, potential harm to alternative energy suppliers). The stakeholder suggested that the OEB's process should include a period for the solicitation of written comments from those who would be adversely affected by the proposed projects. The stakeholder further suggested that the OEB could then include these impacts in the Report. Along similar lines, three stakeholders proposed that the OEB require project proponents to compare savings associated with switching to natural gas against savings associated with other energy alternatives available or potentially available to customers (e.g., heat pumps, etc.). The OEB does not consider that an assessment of potential harm to alternative energy suppliers or the savings associated with other energy suppliers or the savings associated with other energy suppliers or the savings the Section 35 Letter.

The focus of comments received from two stakeholders was on encouraging projects that would serve Indigenous communities. Their other comments related to historic infrastructure gaps, energy poverty, and the potential impact on the electricity system resulting from reduced demand. Although it is not within the ambit of the OEB's mandate under the Section 35 Letter to direct proponents with regard to the communities that they may wish to serve, the OEB anticipates that some projects may propose to serve First Nations reserve lands or off-reserve Indigenous consumers. The OEB has added a new requirement in section 3.1 of the Final Guidelines requiring proponents to indicate whether their proposed project would serve any First Nations reserves, which may be useful information for the Ministry when considering proposed projects. The matter of off-reserve Indigenous consumers is discussed in the section on "Comments related to Part III" below. Issues relating to matters such as historic infrastructure gaps and potential impacts on the electricity system, while important, go beyond the scope of the matters that the OEB was asked to report to the Minister, and in the OEB's view cannot be meaningfully reviewed within the timelines set out in the Section 35 Letter.

	-5	-		Ontari	o Energy Board EB-2019-0255
	 -		 		

One stakeholder suggested that the Report should refrain from ranking or rating proposed projects. The OEB wishes to clarify that the Section 35 Letter did not ask for a ranking of proposed projects, and the OEB does not intend to provide a ranking.

One stakeholder commented on the thresholds for leave to construct applications, including the prescribed amount of \$2 million and nominal pipe size of 12 inches. The stakeholder suggested that, in order to reduce the number of regulatory applications to the OEB and to reduce regulatory burden and costs, the prescribed amount should be increased to \$10 million and the nominal pipe size augmented to 16 inches. The stakeholder recommended that the OEB address the leave to construct thresholds as part of the Report. The OEB notes that changing those thresholds would require legislative change. While the OEB agrees that there is merit in a review of the thresholds given the length of time that they have been in place, this is outside the scope of what the OEB has been asked to do under the Section 35 Letter.

Several stakeholders proposed that the OEB require proponents to include information on their plans to provide Demand Side Management (DSM) programs for customers (from the time of conversion to natural gas and on an ongoing basis). One stakeholder suggested that the costs of offering DSM should also form part of the costs of the proposed projects. The OEB notes that there is not currently a common approach with respect to DSM across existing rate-regulated natural gas distributors. The OEB may also receive information on proposed projects from new entrants, who may not have DSM proposals developed at this time. The OEB will therefore not include specific requirements with respect to DSM in the Final Guidelines. However, the OEB takes this opportunity to note that it expects existing rate-regulated natural gas distributors with DSM programs to offer access to DSM programs to any new natural gas customers in accordance with policies and orders of the OEB prevailing at the relevant time. Other natural gas distributors whose rates become regulated by the OEB may also have the opportunity to make proposals to provide DSM programs as part of any new DSM framework going forward.

# Comments related to Part II – Description of Proponent's Technical Expertise and Financial Capability

One stakeholder suggested that the information required in Part II of the Draft Guidelines should not be required for any proponent who is a natural gas distributor currently operating in Ontario. The OEB agrees and has clarified that natural gas distributors that are currently rate-regulated by the OEB will not be required to provide the information set out in Part II of the Final Guidelines. -6-

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One stakeholder suggested that information related to a project proponent's financial capability should only need to be submitted once for each proponent, regardless of how many community expansion proposals are presented by that proponent. The Final Guidelines clarify that if a proponent who is not an existing OEB rate-regulated natural gas distributor intends to file information on multiple proposed projects, that proponent will only be required to file the information requested in Part II of the Final Guidelines once, unless the proponent has different organizational or financing structures for its proposed projects, in which case the Part II information must be filed for each different organizational or financing structure.

In regards to section 2.2 of the Draft Guidelines, one stakeholder suggested that municipally-owned greenfield utilities may not be able to provide information related to credit history or credit rating, and that the inability to provide this information should not impair the funding eligibility of greenfield utilities, particularly utilities located in northern Ontario. The stakeholder also asked for clarity with respect to the type of evidence that would satisfy the requirements regarding access to debt and equity markets (for example, confirmation that a comfort letter from a financial institution or the particulars of a negotiated credit arrangement should in their view suffice). The OEB has clarified in the Final Guidelines that new entrants that cannot provide the information identified in section 2.2 should explain why that is the case and file the best financial information that they have available.

## Comments related to Part III – Description of and Support for Project

## 3.1 - General Overview of Project

One stakeholder suggested modified language that specifies the inclusion of Indigenous communities, and Indigenous community members both on- and off-reserve, as an explicit subset of communities to be connected. As noted above, the OEB has modified the language in section 3.1 to require that any on-reserve communities that would be served by a proposed project be identified. The OEB will not require that proponents identify off-reserve Indigenous consumers, as it may be difficult for proponents to obtain sufficiently accurate information in time to include it in their project information given the timelines established by the Section 35 Letter.

Other stakeholders suggested that a description be provided as to how a proposed project aligns with any local energy plans, including a Municipal Energy Plan, Indigenous Community Energy Plan, and with regional planning processes, and how the proposed project would comply with policy statements made in the provincial

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government's Growth Plan for Northern Ontario. The OEB will not require proponents to address the alignment of a proposed project with any applicable energy plans, as the incremental benefit may not outweigh the incremental burden required to explain relevant linkages.

One stakeholder suggested that proponents should be required to explain their gas supply plans, including sources of the commodity, upstream transportation, and any other gas supply considerations that may be unique to their proposed project. The OEB believes that for new entrants, a high-level description of their sources of the commodity, upstream transportation, and any other relevant gas supply considerations could be useful for context. The OEB already has this information in the gas supply plans filed by the rate-regulated natural gas distributors. In addition, all proponents proposing projects using CNG and/or LNG will be required to provide a high-level description of the approach to procuring supply, including the infrastructure that will be required. The OEB has added these requirements to section 3.1 of the Final Guidelines.

3.2 to 3.4 – Customer Attachment and Volume Forecasts and Estimated Conversion Costs

Many stakeholders suggested that proponents should include supporting documentation to substantiate their forecasts and cost estimates. Stakeholders also suggested that proponents be required to conduct and provide sensitivity analyses for volume forecasts and conversion cost estimates. As indicated in the Section 35 Letter, the OEB is to analyze proposed projects with a focus on assessing whether they can be implemented substantially as proposed, in support of which the OEB is to call for a demonstrated commitment by the proponent that it would be willing to be held to the project costs, timelines and volume forecast set out in the project information provided to the OEB.

To give effect to this requirement, the Final Guidelines require a ten-year rate stability period for each proposed project, including in respect of attachment forecasts. Proponents should expect to bear the risk for the ten-year period if the customers they forecast do not attach to the system and/or actual project costs (capital and OM&A) are higher than expected. This is consistent with the OEB's South Bruce decision<sup>1</sup>, where the OEB approved a ten-year rate stability period, which will hold the proponent to its forecast costs and not allow it to recover any over-spending from ratepayers during that period.

<sup>&</sup>lt;sup>1</sup> EB-2016-0137, EB-2016-0138, EB-2016-0139

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Proponents are responsible for accurately forecasting attachment rates, volumes and costs. To the extent they do not do so, they should not expect that they would be able to recover any additional costs from ratepayers for at least the ten-year rate stability period. As a result, the OEB is of the view that it is not necessary for the proponent to file supporting documentation or sensitivity analyses in relation to their customer attachment forecast and cost estimates.

Several stakeholders suggested that estimates of greenhouse gas emissions and emissions reductions associated with converting a community to natural gas should be provided as part of the project information. The OEB agrees that this information could be a useful input to the Ministry's consideration of proposed projects. Section 3.4 of the Final Guidelines makes provision for greenhouse gas emission estimates related to converting existing heating and water heating systems to natural gas to be included in the proponent's assessment of household energy impacts.

One stakeholder suggested that the OEB develop standardized household energy cost comparison models that include various energy alternatives in a potential gas expansion scenario, and which would include, for example, uniform assumptions related to carbon costs and landed costs of natural gas, propane, electricity, or other fuels. While the OEB sees merit in standardizing the assumptions to facilitate the OEB's review of costs and savings as between projects, the timelines indicated in the Section 35 Letter are not compatible with the OEB undertaking that kind of work in a responsible way. For clarity, however, the calculation of household energy costs for natural gas should include conversion costs, commodity costs, associated upstream transportation costs to Ontario, incremental CNG and LNG costs (where applicable), costs under the federal *Greenhouse Gas Pollution Pricing Act*, and distribution costs. The major assumptions (e.g. conversion factors) used in the calculations must also be provided. The OEB has added this clarification in section 3.4 of the Final Guidelines.

In regards to section 3.3, two stakeholders suggested that the annual average consumption level of 2,200 m<sup>3</sup> in the Draft Guidelines should be allowed to vary if better information is available to estimate the annual consumption for a typical residential customer in a given community. The Final Guidelines clarify that the 2,200 m<sup>3</sup> value is a default value. If a proponent has more accurate information regarding the annual consumption for residential customers in a given community, the proponent should use that value and explain how it has determined that it is more accurate than the default value.

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## 3.5 – Proposed Construction Schedule

One stakeholder stated that it does not believe that information other than the date of construction being initiated and the estimated date of providing service is necessary. The OEB is of the view that the construction start date, the projected in-service date, and all major milestones are important information in considering whether a project can be implemented substantially as proposed. The OEB has therefore retained these requirements in the Final Guidelines.

3.7 - Certificate of Public Convenience and Necessity

One stakeholder suggested that when a proponent includes a copy of any Certificate, the proponent should specify whether the boundaries of the existing Certificate encompass the entire area which would be supplied with natural gas. The OEB agrees that proponents should specify the boundaries of the existing Certificate and indicate whether the boundaries encompass the entire area which would be supplied with natural gas.

## Comments related to Part IV – Cost of Project

## 4.1 - Rate Stability Period

One stakeholder suggested that the requirement to commit to a period of rate stability should be decided on a case-by-case basis and not be imposed as a generic requirement. Another stakeholder proposed that a uniform ten-year rate stability period should apply for all proposed projects, as opposed to a minimum ten-year rate stability period. The OEB is of the view that a rate stability period should be reflected in the Final Guidelines as it is consistent with recent OEB decisions and gives effect to the requirement in the Section 35 Letter that the OEB analyze proposed projects with a focus on assessing whether they can be implemented substantially as proposed, including a demonstrated commitment by the proponent that it would be willing to be held to the project costs, timelines and volume forecast set out in their proposal. The OEB agrees that a standardized ten-year rate stability period should be used for all projects, as it is unlikely in any event that proponents would propose a longer rate stability period. Section 4.1 of the Final Guidelines reflects that change.

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## 4.2 to 4.4 - Project Cost Forecasts

In regards to section 4.2, one stakeholder stated that because the Minister is looking for proponents to demonstrate a commitment to total project costs, details of project capital costs over the rate stability period should not be required by the OEB at this stage. Rather, the stakeholder stated that the net present value of the total net revenue of the project over the 40-year feasibility test period should be sufficient to evaluate proposed projects. Another stakeholder agreed with the requirement to include annual and total forecast costs during the rate stability period and that the proponent should take the risk that actual costs may differ from forecast (either higher or lower). One stakeholder suggested that costs related to upstream reinforcement should be considered a common assumption for all proposed projects to serve the same area. In other cases, the incumbent utility should be required to provide costing over a reasonable timeframe.

The OEB has determined that the total forecast capital costs of projects will only be required at the end of the rate stability period (i.e. year ten). This will ensure that sufficient information exists to determine the total capital costs that a proponent has committed to over the rate stability period. Accordingly, the OEB has removed the need for annual forecast capital costs during the rate stability period.

Proponents are required to include any upstream reinforcement costs, and the OEB expects that the incumbent utility will provide an estimate of those costs to any proponent requesting one and will do so in a timely manner, whether or not it is providing information to the OEB for a proposed project to serve the same area. The OEB may be notified should any issues arise in that respect. The OEB expects that upstream reinforcement costs for all proposed projects to serve the same area should be the same. To the extent that the reinforcement costs for an incumbent utility's proposed project are materially different from the reinforcement costs that the utility has estimated for another proponent's project in the same area, the incumbent utility must identify in its filing that two separate estimates exist and explain the reasons for the differences. Section 4.2 of the Final Guidelines reflects these changes.

With respect to section 4.3, one stakeholder commented that, given that the Minister is looking for project proponents to demonstrate a commitment to be held to total project costs, the details of OM&A costs over the rate stability period are not needed by the OEB at this stage. In their view, the net present value of the total net revenue of the project over the feasibility test period should be sufficient. The stakeholder further commented that the OM&A costs should be the same as those included in the economic assessment of each project (i.e. only incremental OM&A costs should be included). Another stakeholder also suggested that project costs should include

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incremental OM&A costs in order to avoid an over-recovery of costs. Another stakeholder supported the use of fully allocated forecast OM&A costs on the grounds that this ensures that there is no cross-subsidization of OM&A expenses between existing customers and customers of community expansions.

In order to streamline the project information submission process, the OEB has removed section 4.3, which appeared in the Draft Guidelines, as it is subsumed in the section of the Final Guidelines (now section 4.3) that deals with the revenue requirement. The OEB is, however, of the view that fully allocated costs should be used by proponents for the purposes of facilitating the OEB's review of costs between projects. This would allow for a more level playing field as between incumbent distributors and potential new entrants. However, for economic feasibility, incremental costs should be used in keeping with <u>E.B.O. 188</u>.

In regards to section 4.4 of the Draft Guidelines (now section 4.3 of the Final Guidelines), one stakeholder commented that the total annual revenue requirement of the project over the rate stability period is not relevant to the assessment of the viability of an expansion project and that this information is implicit in the profitability index (PI) calculation. Another stakeholder agreed with the requirement to provide the total annual revenue requirement (as well as with the breakdown included in the Draft Guidelines) as proponents should bear the risk of the proposed revenue requirement over the rate stability period. This stakeholder also suggested that the OEB establish common assumptions (such as depreciation rates, capital structure, etc.). The OEB is of the view that the annual and total revenue requirement over the rate stability period is needed to demonstrate that a proponent can be held to its forecast total project costs. However, the OEB has streamlined the information to be provided by limiting it to total annual and cumulative revenue requirement over the rate stability period (i.e. with no breakdown of costs or the cost of capital) and rate base amount at the end of year ten.

One stakeholder suggested that, in order to evaluate the "all-in" cost of gas for proponents and consumers, incremental gas supply costs should be included in the analysis. The OEB is of the view that gas supply costs, including commodity costs and associated upstream transportation costs to Ontario, are not required as they are assumed to be common costs for all proponents. Assuming otherwise could introduce significant bias given that differences in gas supply cost projections between proponents could be material. However, to the extent that a proponent is proposing to use CNG or LNG, the costs of the infrastructure needed, as well as other associated costs, should be included as part of the project costs as CNG or LNG would displace pipelines to be built over a greater distance.

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## Comments related to Part V – Section 36.2 Funding

One stakeholder stated that information regarding the section 36.2 funding needed in year five per customer number and volumes is not relevant for the purposes of analyzing proposals, and that section 36.2 funding per customer number and volumes should only be required for year ten. The stakeholder also requested clarification regarding whether the full 40 years of system expansion surcharge (SES) revenue needs to be included in calculating the PI and section 36.2 funding information for a proposed project.

The OEB has determined that it will only require the section 36.2 funding information per customer number and volumes for year ten and not for year five, as information called for by sections 3.2 and 3.3 of the Final Guidelines will provide information on the pace of customer attachment and volumes. Sections 5.2 and 5.3 reflect that change. The OEB also confirms that the full 40 years of SES revenue needs to be included in calculating the project PI and section 36.2 funding information, consistent with the approach taken in the OEB's South Bruce decision. The OEB has also clarified in section 7.1 that, in keeping with the OEB's approach to avoiding cross-subsidization between customers, the PI for a proposed project is to be equal to one (1.0) and should be calculated on an individual basis (i.e. a proponent may not calculate its section 36.2 funding need based on a "portfolio" of projects).

## Comments related to Part VI – Distribution Charge

One stakeholder stated that the funding required per customer to achieve the required project PI is the key piece of information that is required for an effective review of proposed projects and that the annual amounts recovered by a project proponent are implicit in the PI calculation that is to be provided by proponents. Another stakeholder suggested that the Draft Guidelines are not clear on whether the OEB intends proponents to identify average distribution charges or charges applicable to individual rate classes, and argued that some sort of average would be of limited value. This stakeholder noted that the Draft Guidelines clearly do not contemplate the provision of the kind of cost allocation information that would conventionally be relied upon in identifying and approving rates by rate class.

The OEB confirms that it does not expect that proponents will submit a cost allocation study to establish distribution charges at the rate class level, as this may be too onerous for proponents at this stage.

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The OEB maintains that an estimate of distribution charges should be provided as it would be the foundation for determining the rates that would apply during the rate stability period. The OEB has, however, streamlined the Final Guidelines to only capture distribution charges for the residential class over the rate stability period. The OEB notes that, in keeping with the Section 35 Letter, this information is needed to estimate the extent to which a proposed project would reduce the household energy cost burden in the project area (section 3.4 of the Final Guidelines). The OEB has also revised section 6.1 to require proponents to confirm that there would be no material cross-subsidization between rate classes.

Another stakeholder proposed that the entire distribution charge, including both the underlying distribution rates as well as the SES, be subject to a ten-year rate stability period. To the extent that the rates in an expansion community are based on a utility's existing rates plus the SES, then these underlying rates may change through the utility's ordinary periodic rate cases to reflect, for example, an adjustment under an incentive regulation mechanism. In the OEB's view, taking this approach would introduce an assumption – that stand-alone rates are required for every community expansion project – that is inconsistent with OEB decisions<sup>2</sup>. As a result, the OEB is not implementing this proposal.

## Comments related to Part VII – Profitability Index

One stakeholder suggested that the PI calculation should be based on the OEB's E.B.O. 188. As discussed in the section on "Comments related to Part V" above, both the section 36.2 funding need and the project PI should be calculated based on an individual project and not on a "portfolio" of projects, in keeping with the OEB's approach to avoiding cross-subsidization between customers.

One stakeholder stated that there is no need for detailed supporting documentation related to the PI for each individual project. The OEB agrees and has modified sections 7.1 and 7.2 to only include a summary table with which proponents can demonstrate that the PI is equal to one (1.0). Any major assumptions used in the calculation, such as the discount rate, are also to be identified. The OEB expects that proponents will base their PI calculation on the methodology outlined in E.B.O. 188, except as otherwise stated in the Final Guidelines.

<sup>&</sup>lt;sup>2</sup> For example, EB-2015-0179: Union Gas Ltd. Community Expansion

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## Comments related to Part VIII – OEB Approvals

One stakeholder commented that it would be difficult to identify required approvals beyond leave to construct, Certificates and franchise agreements. A project proponent would not typically be aware of other permits/approvals required from municipalities, conservation authorities, etc.

The OEB wishes to clarify that this section only pertains to approvals that will be required from the OEB. The OEB is not asking proponents to provide information on all other approvals or permits that may be required in respect of a given proposed project. For the purposes of preparing the information required by section 8.2 of the Final Guidelines, proponents should reference the performance standards posted on the OEB's <u>website</u> and where applicable assume a written hearing process.

## Comments on the Sufficiency of the 90-day Timeline

The OEB received relatively few comments regarding the sufficiency of the 90-day period within which interested project proponents may file their information with the OEB.

One stakeholder suggested that the timeline biases in favour of incumbent distributors. Another stakeholder recommended that as much time as possible be provided for proponents to prepare submissions.

While the OEB understands the preference for more time to submit project information, the OEB is of the view that it is appropriate to maintain the 90-day period given that the Report is expected by August 31, 2020 as set out in the Section 35 Letter. This will allow for a 90-day window for submissions and a 90-day window for the OEB to analyze project information and submit its Report to the Ministry by August 31, 2020.

## Comments on the Confidentiality of Information

The OEB received relatively few comments regarding information that interested parties believe should be treated as confidential as per the OEB's <u>Rules of Practice and</u> <u>Procedure</u> and its <u>Practice Direction on Confidential Filings</u>. Neither of the existing rate-regulated natural gas distributors provided comments related to confidentiality.

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As noted in its December 19, 2019 letter, the OEB intends to post each proponent's project information on the OEB website following the deadline for filing project information, subject to the exception noted in the next section.

## <u>Comments on the Options for Filing Information as between Certificate and Non-</u> <u>Certificate Holders</u>

The OEB received relatively few comments related to the alternative options for addressing the requirement in the Section 35 Letter that a proponent must be the holder of the Certificate unless the Certificate holder does not propose a project for the area.

One stakeholder supported having the Certificate holder confirm in writing, immediately following the issuance of the Final Guidelines, to which Certificate areas they wish to bring forward a project (option 1), as this would be less administratively burdensome. Another stakeholder supported option 2 (i.e. allowing interested project proponents to bring forward proposed projects in areas where they do not have a Certificate, on the understanding that the Certificate holder in essence has a "right of first refusal"), stating that this option is more practical, and that the OEB should consider projects by non-Certificate holders. Another stakeholder stated that all proposed projects that satisfy the base requirements should be considered, regardless of whether or not the proponent is the Certificate holder. One stakeholder expressed concern with both options and proposed that the OEB allow multiple proponents, including the Certificate holder as well as others, to file project information and include them in the Report.

The OEB has selected option 2, as it appears to be more equitable and is less administratively burdensome for proponents. The other options suggested by some stakeholders are not compatible with the Section 35 Letter. As a result, the OEB will not include in its Report any proposed project from a non-Certificate holder unless the Certificate holder does not bring forward a project for the same area, and the OEB will not be posting project information for projects that are not included in the OEB's review.

## **Cost Awards**

The issuance of the Final Guidelines marks the conclusion of this consultation. The OEB thanks all stakeholders for their contributions. A Notice of Hearing for Cost Awards will be issued separately.

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## **Filing Instructions**

All materials filed with the OEB must quote the file number, **EB-2019-0255**, be made in a searchable/unrestricted PDF format and sent electronically through the OEB's web portal at <u>https://pes.ontarioenergyboard.ca/eservice</u>. Two paper copies must also be filed at the OEB's address provided below. Filings must clearly state the sender's name, postal address and telephone number, fax number and email address. Parties must use the document naming conventions and document submission standards outlined in the RESS Document Guideline found at <u>https://www.oeb.ca/industry</u>. If the web portal is not available parties may email their documents to the address below. Those who do not have computer access are required to file seven paper copies.

All communications should be directed to the attention of the Registrar at the address below, and be received no later than 4:45 p.m. on the required date.

## ADDRESS

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

Email: <u>boardsec@oeb.ca</u> Tel: 1-888-632-6273 (Toll free) Fax: 416-440-7656

Yours truly,

Original signed by

Christine E. Long Registrar and Board Secretary

# Final Guidelines for Potential Projects to Expand Access to Natural Gas Distribution

Proponents completing the costing information outlined below should exclude the following unless noted otherwise:

- Demand-Side Management (DSM) costs
- Gas commodity costs and associated upstream transportation costs to Ontario
- Royalty payments to municipalities if the payments are not recovered through the revenue requirement

References to "section 36.2 funding" below are references to funding under section 36.2 of the *Ontario Energy Board Act, 1998 (*OEB Act).

Part I – Name of Proponent	
Name of Proponent:	File No: EB-2019-0255
Project Name:	
Address of Head Office:	Telephone Number:
Name of Individual to Contact:	Office Telephone Number:
	Cell Phone Number:
	Email Address:

**Part II – Description of Proponent's Technical Expertise and Financial Capability** Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.

A proponent that is not currently rate-regulated as a natural gas distributor by the OEB and that has multiple proposed projects is only required to provide the information in this Part once, unless the proponent has different organizational or financial structure approaches for its projects. In that case, the information in this Part must be provided for each different organizational or financing structure.

Part	II – Description of Proponent's Technical Expertise and Financial Capability
2.1	Describe the proponent's technical expertise to develop, construct, operate and maintain a natural gas distribution system.
2.2	<ul> <li>Describe the proponent's financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</li> <li>Current credit rating of the proponent, its parent or associated companies.</li> <li>Financial statements for each of the past two fiscal years. This may include audited financial statements, annual reports, prospectuses or other such information. If the proponent does not have financial statements (because it is a new entrant), the proponent is instead to provide pro forma financial statements for two years along with notes or business plans explaining the assumptions used in preparing the pro forma statements, where the documents must be signed by at least one key individual.</li> <li>If the proponent needs to raise additional debt or equity to finance the proposed project, evidence of the proponent's ability to access the debt and equity markets.</li> </ul>
	New entrants that cannot provide the information identified in this section should explain why that is the case and provide the best information that they have available.

Part I	II – Description of and Support for Project
3.1	Provide a general overview of the project, which is to include the following: communities to be connected, including whether the project would serve any on- reserve Indigenous communities; existing population of each community by residential, commercial/institutional and industrial sectors; routing; length of pipeline; and nominal pipe size.
	For a proponent that is not rate-regulated as a natural gas distributor by the OEB, provide a high-level description of sources of the commodity, upstream transportation, and any other relevant gas supply considerations. For all proponents proposing projects using CNG and/or LNG, provide a high-level description of the approach to procuring supply, including the infrastructure that will be required.
3.2	Provide the annual and cumulative forecast of the number of customer attachments over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community. Indicate for each customer type whether the service to be provided would be firm or

Part I	II – Description of and Support for Project
	interruptible.
3.3	Provide the annual and cumulative forecast of volumes (in m <sup>3</sup> ) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.
	For the residential segment, the default value for the average consumption level is 2,200 m <sup>3</sup> per year. A proponent that has more accurate information regarding the annual consumption for residential customers in a given community may use that value, in which case it must explain how it has determined that it is more accurate than the default.
3.4	Provide the estimated conversion costs to convert each of the existing heating systems (e.g., propane forced air, oil forced air, electric forced air and electric baseboard) and water-heating systems (e.g., electric, oil and propane) to natural gas. To the extent available, provide information on the current proportion of customers on each type of heating system.
	Provide the estimated annual costs of the existing alternative fuels relative to natural gas, including the annual savings with natural gas. The calculation of household energy costs for natural gas should include conversion costs, commodity costs, associated upstream transportation costs to Ontario, incremental CNG and LNG costs (where applicable), costs under the federal <i>Greenhouse Gas Pollution Pricing Act</i> and distribution costs. The assessment of household energy cost impacts should include greenhouse gas (GHG) emission estimates (whether positive or negative) related to converting existing heating and water heating systems to natural gas. The major assumptions (e.g. conversion factors) used in the calculations must also be provided.
3.5	Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.
3.6	Provide letter(s) from the Band Council(s) and/or local government, as applicable, stating support for the project, including details of any commitment to financial support.
3.7	Provide a copy of the Certificate of Public Convenience and Necessity (Certificate) for the area to be served, if held by the project proponent. If not, indicate whether another entity holds the Certificate for the area to be served, if known, and if so, identify the Certificate holder.
	Where the project proponent holds a Certificate for the areas to be served, specify the boundaries of the Certificate and indicate whether the boundaries encompass the entire area that would be supplied by the proposed project.

Part I	Part III – Description of and Support for Project				
Part I	V – Cost of Project				
4.1	Confirm that the proposed pro	oject inclu	des a ten-ye	ar rate stabil	ity period.
4.2	Provide the total forecast of capital costs (including any forecast of upstream reinforcement costs) of the project at the end of the rate stability period (i.e. year ten).				
	Where applicable, the inflation rate to be used is the most recent quarter average GDP IPI FDD. For interest during construction, the proponent is to use the OEB-prescribed interest rate for construction work in progress (CWIP).				
	For projects proposing to use CNG and/or LNG, the costs of required infrastructure and other associated costs must be included as part of the total project capital costs.				
	Include any upstream reinforcement costs in the total cost of the project. To the extent that the reinforcement costs for an incumbent utility's proposed project are materially different from the reinforcement costs that the utility has estimated for another proponent's project in the same area, the incumbent utility must identify in its filing that two separate estimates exist and explain the reasons for the differences.				
4.3	Provide the total annual forecast revenue requirement of the project over the ten- year rate stability period (using fully allocated OM&A costs) and rate base amount at the end of year ten.				
	Complete the tables below:				
	Revenue Requirement				
	Description	Year 1	Year 2	Year 10	Total
	Revenue requirement				
	•		ı		
	Description	Year 10			
	Closing Rate Base				
	Where applicable, the inflation rate to be used is the most recent quarter average GDP IPI FDD. For interest during construction, the proponent is to use the OEB-prescribed interest rate for construction work in progress (CWIP).				

Part \	V – Section 36.2 Funding
5.1	Provide the total amount of section 36.2 funding needed to support the project.
5.2	Provide the section 36.2 funding amount per customer number served in year ten of the project.
5.3	Provide the section 36.2 funding amount per volume (m <sup>3</sup> ) in year ten of the project.

Part \	Part VI – Distribution Charge				
6.1	Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the rate stability period. Provide a confirmation that there would be no material cross-subsidization between rate classes.				

Part \	/II – Profitability Index / Benefit to Cost Ratio
7.1	Provide, in a summary table, the expected Profitability Index (PI) of the project, inclusive of the proposed section 36.2 funding. Provide any major assumptions used in the calculation, and specify all proposed section 36.2 funding, revenue from rates (including any proposed system expansion surcharges), capital contributions and municipal tax holidays or other municipal financial support. The project must have a PI of 1.0. The PI is to be calculated based on an individual project (i.e. not a "portfolio" of projects).
7.2	Provide, in a summary table that otherwise meets the requirements of section 7.1, the expected PI of the project without the proposed section 36.2 funding.

Part \	/III – OEB Approvals
8.1	Identify any OEB approvals that will be required for the project (Leave to Construct, Certificate of Public Convenience and Necessity, Municipal Franchise Agreement, Rate Order)
8.2	For OEB approvals identified in section 8.1, provide a schedule for applying for them and the date by which each of these approvals is required to meet the proposed in-service date. For this purpose, proponents should reference the performance standards posted on the OEB's <u>website</u> and where applicable assume a written hearing process.

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-4, Attachment 3, Page 1 of 3

Ministry of Energy, Northern Development and Mines

Office of the Minister

Office of the Associate Minister of Energy

77 Grenville Street, 10<sup>th</sup> Floor Toronto ON M7A 2C1 Tel.: 416-327-6758 Ministère de l'Énergie, du Développement du Nord et des Mines

Bureau du ministre

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MC-994-2019-935

Mr. Robert Dodds Vice-Chair Ontario Energy Board 2300 Yonge Street, 27th Floor Toronto ON M4P 1E4

Dear Mr. Dodds:

I write in my capacity as the Minister of Energy, Northern Development and Mines with the support of the Associate Minister of Energy in order to exercise the statutory power I have under section 35 of the *Ontario Energy Board Act, 1998* ("Act") to require the Ontario Energy Board ("Board") to examine and report back to the Ministry of Energy, Northern Development and Mines ("Ministry") with information on potential projects to expand access to natural gas distribution systems for new customers.

#### Background

On September 18, 2018, the Government announced it would take action to expand natural gas distribution to communities that are not currently connected to a natural gas distribution system.

The Access to Natural Gas Act, 2018, which amended the Act, provides a mechanism to financially support the expansion of natural gas distribution for projects that would otherwise be considered uneconomic under existing policies.

Ontario Regulation 24/19, Expansion of Natural Gas Distribution Systems ("Regulation"), under the Act supports natural gas expansion by imposing a \$1 per month charge on existing natural gas customers. The nine projects currently listed in the Regulation are eligible for financial support, subject to receiving any necessary Board approvals. Several of these projects are currently under construction.

In order to build on the progress to date, the Government intends to further increase access to natural gas by making additional new projects eligible for financial support. The Government intends to make use of the same mechanism articulated in the current Regulation; namely, the collection of \$1 per month from existing natural gas customers.

.../cont'd

The Government intends for approximately \$130 million to be made available to support new natural gas projects that can reasonably be expected to commence construction between 2021 and 2023.

## Section 35 Report

Therefore, pursuant to my authority under s.35 of the Act, with the support of the Associate Minister of Energy, I require the Board to examine and report back to the Ministry with information about additional natural gas expansion projects that the Government could consider as potential candidates for financial support.

It is the Government's intention that financial support be limited to potential natural gas expansion projects that would, under existing policies, be considered uneconomic.

I expect the Board to apply its expertise in developing a process to solicit information from proponents about proposed natural gas distribution expansion projects, and to analyze the proposed projects with a focus on assessing whether they can be implemented substantially as proposed. This should include a call for a demonstrated commitment by the proponent that it would be willing to be held to the project cost, timelines and volumes forecasts as set out in their project proposal. The Board's approach should consider the following:

- 1. The number of customers (in terms of customer count, volume of gas to be distributed, and customer type) that would be connected by each proposed project;
- 2. The total cost of each proposed project, as well as the dollar amount of support needed for each proposed project to meet the Board's profitability threshold;
- 3. The proposed construction start date and construction period for each proposed project, as the Government's focus is on projects that can reasonably be expected to start construction by 2023, allowance being made for the timelines typically applicable to the process of obtaining regulatory approvals;
- 4. The project proponent's demonstrated experience, technical expertise and financial ability to build and operate a natural gas distribution system;
- 5. Support for the proposed project from Band Council(s) and/or local government, as applicable, demonstrated through a written expression of support and/or a commitment to financial support;
- 6. If a proposed project is in an area where a Certificate of Public Convenience and Necessity exists, the proponent must be the Certificate holder unless the Certificate holder does not propose a project for the area; and
- 7. The extent to which the project proponent expects that the proposed project would reduce the household energy cost burden in the project area.

I expect the Board to issue a call for information in early 2020, including details of the information to be filed by interested project proponents. The Board should consider a minimum 90-day window for information submissions. I also ask that, in developing its approach, the Board be mindful of the Government's focus on minimizing regulatory burden for stakeholders.

It is my expectation that the Board will report back to the Ministry no later than August 31, 2020. The information provided by the Board will be taken into account, along with other considerations, to make a determination on future expansion projects. If there is a need to consider further projects for expansion, the Ministry may request that the OEB proceed with a second call for information and report back to the Ministry.

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The Honourable Greg Rickford Minister of Energy, Northern Development and Mines

The Honourable Bill Walker Associate Minister of Energy

c: Mary Anne Aldred, Chief Operating Officer & General Counsel

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## ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit C, Tab 1, Schedule 1

## Question(s):

- a) Please provide a table showing individually for each portion of the project: (i) the design hour capacity, (ii) the forecast design hour demand if the full customer attachment/revenue forecast materializes, (iii) the design hour capacity if Enbridge were to use the next smallest sized pipe, and (iv) the cost savings from using the next smallest size pipe.
- b) Individually for each portion of the project, please indicate whether Enbridge could downsize the pipe, or part of the pipe, and still meet the demand underlying the revenue forecast. Please provide a full explanation, including a quantification of the savings from downsizing.

#### Response:

Please see Table 1.

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#### Table 1

#### Comparison of Design Hour Capacities for the Proposed Project Facilities

Line No.	Facility	Design Hour Capacity (m³/hr)	Forecast Design Hour Demand If the Full Customer Attachment Materializes (m³/hr)	Design Hour Capacity of the Next Smallest Sized Pipe (m³/hr)	Cost Savings from Using the Next Smallest Size Pipe
			Supply Later	ral	
1	Nominal Pipe Size (NPS) 8 Polyethylene (PE)	4,525	2,650	2,318	~ \$775,424
			Ancillary Facil	ities	
2	NPS 6 PE	4,525	2,650	4,055	~ \$159,109
3	NPS 4 PE	4,525	2,650	1,908	~ \$623,336
4	NPS 2 PE	4,525	2,650	N/A (NPS 2 is the smallest size for new mains)	N/A

Notes:

1. All sections of main outlined have been assessed individually, in isolation. Downsizing of multiple sections of main concurrently has not been assessed. If one segment of main has been downsized it has been assumed that all other segments will remain sized as per proposed design.

- a) The information and notes associated with Table 1 apply to each of the pipeline facilities described below.
  - i) Supply Lateral

Proposed NPS 8 PE

Approximately 71% of the proposed NPS 8 PE pipeline can be downsized to NPS 6 PE and still meet the forecasted demand of the Project. However, downsizing a portion of the proposed NPS 8 PE pipeline before it arrives at the Eganville community would restrict gas flow before it reaches the largest concentration of customers. Therefore, downsizing the pipeline would prevent Enbridge Gas from serving any additional customers past the forecasted attachment rate without reinforcing the downsized section of pipeline in the future. Downsizing the proposed NPS 8 PE pipeline entirely does not satisfy the forecast design hour demand if the full customer attachment materializes.

## ii) Ancillary Facilities

## Proposed NPS 6 PE

Approximately 100% of NPS 6 PE main within the town can be downsized to NPS 4 PE from a capacity standpoint. However, due to the complexity of installing river crossings and to avoid potential secondary crossings, NPS 6 PE is recommended in this Project.

## Proposed NPS 4 PE

Approximately 87% of NPS 4 PE main within the community can be downsized from a capacity standpoint. However, downsizing the distribution pipeline would prevent the Company from serving additional customers past the forecasted attachment rate without requiring a reinforcement pipeline in the future. Downsizing the proposed NPS 4 PE pipeline entirely does not satisfy the forecast design hour demand if the full customer attachment materializes. Design for distribution pipe within the community of Eganville is ongoing, and the Company will continue to assess the required demand to construct the most robust system that maintains reliability and capacity for customers while avoiding unnecessary additional spend.

## Proposed NPS 2 PE

NPS 2 is the smallest main diameter for new main projects.

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## ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1, Page 7

## Question(s):

- a) Table 2 shows the projected customer additions. Please confirm if the years indicated are calendar years. If not, please explain.
- b) Please provide a copy of table 2 with "Year 1, Year 2..." replaced with the actual years.

#### Response:

- a) Confirmed. Years indicated are calendar years.
- b) Please see Table 2 reproduced with actual calendar years.

									_		
Eganville Customer	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total Forecasted
Additions											FUIECasteu
Residential Units	56	140	111	56	56	28	28	28	28	28	550
(Singles)	50	140		50	50	20	20	20	20	20	559
Residential Multi-											
Units (Semis, Towns,	0	22	19	20	19	5	3	3	3	3	97
Apartments)											
Commercial/Industrial	7	16	11	11	7	2	2	2	2	0	67
Units	/	10	14	14	/	3	2	2	2	0	07
Total	63	178	144	90	82	36	33	33	33	31	723

<u>Table 2</u> Forecasted Customer Attachments for the Project

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## ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

## Reference:

Exhibit B, Tab 1, Schedule 1, Attachment 6 (Forum Survey Results)

## Question(s):

- a) Please provide a table showing, of the respondents likely to connect to natural gas (incl. likely, very likely, and extremely likely), how many and what percent have each of the following space heating systems (# and %): electric baseboard, electric heat pump, electric other, propane, oil, wood, and other.
- b) Please provide a table showing, for each of the respondents likely to connect to natural gas (incl. likely, very likely, and extremely likely) that use oil heating, what is the size of their household and what is their household income (confirming whether that be before or after tax income).
- c) Please provide the fully granular results from the surveys in a live excel spreadsheet. Please include descriptive column headings (not simply reference to survey question numbers). Please include a key or data label table if necessary to understand the responses.
- d) Please provide the fully granular survey materials, including any letters sent to residents, door-to-door survey materials, online survey questions, and CATI survey questions.
- e) CATI survey question materials can be difficult to understand in their "raw" form. Please provide a question mapping document and any other available materials to help the reader understand which questions are asked and when.
- f) Please indicate the number of respondents with air conditioning. If that question was not asked, please provide an average number based on Ontario's housing stock or Enbridge's equipment surveys.
- g) Please provide the approximate average age for customers' propane furnaces. Please provide this figure for all respondents with a propane furnace and for the subset of customers likely to connect to the gas system (incl. likely, somewhat likely, and extremely likely).

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#### Response:

- a) The requested information is provided at Exhibit B, Tab 1, Schedule 1, Attachment 3 (Forum Survey Results), page 2. All types of electric heating were grouped together due to small base sizes.
- b) 43 respondents using oil as their primary heating fuel indicated they are likely to connect to natural gas. Individual survey responses for household income (before taxes) and household size are shown in Table 1 for these 43 respondents. Where data is not provided in Table 1, the respondent declined to provide a response.

Enbridge Gas cautions that the number of respondents that provided both household income and household size is low and this limits the ability to draw conclusions about the broader Eganville area on this matter.

Respondent	Household Income	Household Size
1	\$20K to less than \$40K	1
2	\$40K to less than \$60K	1
3	\$40K to less than \$60K	1
4	\$60K to less than \$80K	1
5	\$60K to less than \$80K	1
6		1
7	Under \$20K	2
8	\$20K to less than \$40K	2
9	\$20K to less than \$40K	2
10	\$20K to less than \$40K	2
11	\$40K to less than \$60K	2
12	\$40K to less than \$60K	2
13	\$40K to less than \$60K	2
14	\$40K to less than \$60K	2
15	\$60K to less than \$80K	2
16	\$60K to less than \$80K	2
17	\$80 to less than \$100K	2
18	\$100K to less than \$120K	2

<u>Table 1</u> <u>Respondents with oil heating likely to connect to natural gas:</u> Individual responses to household income and size

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#### Table 1 (Continued)\*

#### Respondents with oil heating likely to connect to natural gas: Individual responses to household income and size

Respondent	Household Income	Household Size
19		2
20		2
21		2
22		2
23		2
24		2
25		2
26	Under \$20K	3
27	\$20K to less than \$40K	3
28	\$40K to less than \$60K	3
29	\$80 to less than \$100K	3
30	\$80 to less than \$100K	3
31	\$100K to less than \$120K	3
32	\$120K to less than \$140K	3
33	\$140K or more	3
34	\$120K to less than \$140K	4
35	\$80 to less than \$100K	5
36	Refused	5
37	\$80 to less than \$100K	9
38	\$140K or more	
39		
40		
41		
42		
43		

- c) Please see Attachment 1 to this response. Information that could identify the respondent is not included within the file.
- d) Survey materials consisted of the letter distributed to homes in the Project area (see Attachment 2 to this response) and the survey instrument (see Attachment 3 to this

response). The survey instrument includes the survey questions and programming logic used for all methodologies.

- e) Enbridge Gas recognizes that the instruments can be difficult to understand in the format that is output from the survey systems. As such, a simplified version is provided with the questions and programming logic at Attachment 3 to this response. Where very minor differences exist in instructions (for example, some questions in the online survey instructed respondents to select from a list of options whereas options are read in the telephone version) the instrument provides the online instructions.
- f) The survey did not collect information related to air conditioning as summer cooling is not relevant to the Project.

Among existing residential customers living in single-family homes across the entire Enbridge Gas service territory, the 2022 Residential Single Family Natural Gas End Use study conducted by Enbridge Gas found that 89% have air conditioning, of which 90% is a central air conditioning system. However, there can be considerable variation in air conditioning penetration across the Company's service area and therefore franchise-wide results may not be representative of a specific area or community.

g) Enbridge Gas interprets the request as pertaining to the Forum survey conducted within the Project area with prospective customers, not existing Enbridge Gas customers.

The average age of propane systems used as the primary heating source was 5.67 years in total and 5.48 years among those likely to connect to natural gas. For the purpose of calculating the average, responses of "less than one year old" were counted as 1. Note this information was collected May-June, 2022.

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м	lethod	RecordNo	LtCallDt	SCR3. Do you own o rent this property?	or SCRs. Which of the following best describes the building (or buildings) at this location?	SCRs. On average, how much is your annual heating cost for this premise including taxes? Please enter 99999 If you would like to leave blank	H1A. What is the primary energy source of heat for this premise? Is it?	H1AO: Other (SPEGIFY)	H18. What type of system provides the primary source of heat for this premise? Is R_? (RESPONSES FOR OIL)	H18. What type of system provides the primary source of heat for this premixe? Is R? (RESPONSES FOR PROPANE)	H18. What type of system provides the primary source of heat for this premise? Is it? (RESPONSES FOR ELECTRICITY)	H18. What type of system provides the primary source of heat for this premise? Is it? (RESPONSES FOR WOOD)
	Cati	000000461	20220615	Own	Residential	1500.00	Pronana			Bronana Eorrad Air		
	Cati	0000000418	20220617	Own	Farm	0.00	Wood		Of Define (Unit Matter De distant)	Topune Toreca Mil		Wood Stoves/Fireplace
	Cati	0000000002	20220614 20220614	Own	Both Residence and a Business Residential	12345.00 99999.00	Electricity		Oil Boiler (Hot Water Radiators)		Electric Baseboard	
	Cati Cati	0000000273	20220617 20220617	Own Own	Farm Residential	99999.00 2000.00	Wood Propane			Propane Boiler (Hot Water Radiators)		Outdoor wood furnace
	Cati	000000005	20220615	Own	Residential	9999.00	Heat pump such as a geothermal system					
	Cati Cati	0000000249 0000000264	20220620 20220616	Own Own	Residential Residential	2800.00 3000.00	Electricity Propane			Propane Forced Air	Electric Forced Air	
	Cati	000000267	20220615	Own	Residential	2500.00	Oil		Oil Forced Air	Provide Second Alter		
	Cati	0000000050	20220614	Own	Residential	1700.00	Propane			Propane Forced Air Propane Forced Air		
	Cati Cati	000000092	20220614	Own	Residential Residential	2000.00	Oil Propage		Oil Forced Air	Propage Forced Air		
	Cati	0000000527	20220615	Own	Both Residence and a Business	9999.00	Oil		Oil Forced Air			
	Cati Cati	0000000475 000000085	20220620 20220615	Own Own	Residential Residential	6000.00 2500.00	Electricity Oil		Oil Forced Air		Electric Baseboard	
	Cati	000000163	20220616	Own	Residential	2500.00	Oil		Oil Forced Air			Mond Frend Min
	Cati	0000000115	20220615 20220617	Own	Residential	4500.00	Oil		Oil Forced Air			Wood Forced Air
	Cati	0000000123	20220614	Own	Residential	2000.00	Wood		Oil Forced Air			Outdoor wood furnace
	Cati	0000000198	20220615	Own	Residential	3000.00	Oil		Oil Forced Air			
	Cati Cati	0000000125	20220616	Own	Residential Residential	0.00	Wood		Oil Boiler (Hot Water Badiators)			Wood Stoves/Fireplace
	Cati	0000000135	20220615	Own	Farm	99999.00	Wood		on bonci (not water national)			Outdoor wood furnace
	Cati Cati	000000096	20220614 20220615	Own Own	Residential Residential	2600.00 4000.00	Oil Oil		Oil Boiler (Hot Water Radiators) Oil Forced Air			
	Cati	000000514	20220617	Own	Residential	2000.00	Oil		Oil Boiler (Hot Water Radiators)			
	Cati	0000000395	20220615 20220615	Own	Residential	2300.00	Propane			Propane Forced Air		Wood Stoves/Fireplace
	Cati	000000587	20220615	Own	Farm	2000.00	Heat pump such as a geothermal system		015			
	Cati	0000000074	20220621 20220615	Own	Residential	1800.00 99999.00	Oil Heat pump such as a geothermal system		Oil Forced Air			
	Cati	0000000149	20220615	Own	Residential	99999.00	Propane	COMBO OF ELECTRICAL AIR HEAT RUMP		Propane Forced Air		
	Cati	0000000025	20220621	Own	Residential	1200.00	Propane	compo of electricity and the firm		Propane Forced Air		
	Cati Cati	000000047	20220615 20220616	Own Own	Residential Residential	1400.00 99999.00	Electricity Oil		Oil Boiler (Hot Water Radiators)		Electric Forced Air	
	Cati	000000159	20220617	Own	Residential	0.00	Wood					Wood Forced Air
	Cati Cati	000000091 0000000156	20220616 20220620	Own Own	Residential Residential	1000.00 2200.00	Wood Propane			Propane Forced Air		Wood Stoves/Fireplace
	Cati	000000481	20220615	Own	Residential	1400.00	Propane			Propane Forced Air		
	Cati	0000000428	20220616	Own	Residential	6000.00	Propane			Propane Forced Air		Wood Forced Air
	Cati Cati	0000000499	20220617 20220615	Own	Residential Residential	3000.00	Propane		Oil Forced Air	Propane Forced Air		
	Cati	0000000426	20220615	Own	Commercial	100.00	Electricity		on force an		Electric Baseboard	
	Cati Cati	0000000448	20220620 20220615	Own Own	Residential Residential	2000.00 1600.00	Oil Oil		Oil Forced Air Oil Forced Air			
	Cati	0000000452	20220620	Own	Residential	1000.00	Oil		Oil Forced Air			
	Cati Cati	0000000321 0000000543	20220617 20220615	Own Own	Residential Commercial	2400.00 9000.00	Oil		Oil Boiler (Hot Water Radiators)	Propane Forced Air		
	Cati	000000350	20220615	Own	Agriculture	1800.00	Wood			Deserve freedow		Wood Stoves/Fireplace
	Online	0000000004	20220527	Own	Residential	1200.00	Propane			Propane Forced Air		
	Online	000000006	20220527	Own	Residential	3500.00	[DO NOT READ] Other (SPECIFY)	Wood/Oil		Bronono Forced Air		
	Online	0000000008	20220527	Own	Residential	1812.00	Propane			Propane Forced Air		
	Online Online	000000009	20220527	Own	Residential Residential	4000.00 2500.00	Propane			Propane Forced Air Propane Forced Air		
	Online	000000017	20220527	Own	Residential	40000.00	Propane			Propane Forced Air		
	Online Online	000000018	20220527 20220527	Own Own	Residential Residential	4000.00 4800.00	Propane Oil		Oil Forced Air	Propane Forced Air		
	Online	000000025	20220527	Own	Residential	35000.00	Electricity				Heat pump such as a geo	thermal system
	Online	000000025	20220527 20220527	Own	Residential	2600.00 7000.00	Oil		Oil Forced Air Oil Forced Air			
	Online	000000028	20220527	Own	Residential	2250.00	Propane Oil		Oil Forced Air	Propane Forced Air		
	Online	0000000031	20220527	Own	Residential	5000.00	Oil		Oil Forced Air			
	Online Online	000000032	20220528 20220528	Own Own	Residential Residential	99999.00 99999.00	Propane Propane			Propane Forced Air Propane Forced Air		
	Online	000000034	20220528	Own	Residential	2400.00	Oil		Oil Forced Air			
	Online Online	000000035	20220528 20220528	Own	Residential Residential	35000.00 2000.00	Propane Propane			Propane Forced Air Propane Forced Air		
	Online	000000037	20220528	Own	Residential	2500.00	Propane			Propane Forced Air		
	Online	0000000039	20220528	Own	Residential	2400.00	Propane			Propane Forced Air Propane Forced Air		
	Online	0000000042	20220528	Own	Residential	2000.00	Propane			Propane Forced Air Propane Forced Air		
	Online	0000000044	20220528	Own	Residential	8000.00	Propane			Propane Forced Air		
	Online	0000000045	20220528	Own	Residential	2450.00	Propane			Propane Forced Air Propane Forced Air		
	Online	0000000049	20220529	Own	Residential	2500.00	Propane			Propane Forced Air		
	Online Online	0000000050 0000000051	20220529 20220529	Own Own	Residential Residential	2300.00 99999.00	Propane Propane			Propane Forced Air Propane Forced Air		
	Online	000000052	20220529	Own	Residential	5000.00	Propane			Propane Forced Air		Wood Farmer for
	Online	0000000055	20220529 20220530	Own Own	Residential	2000.00 1400.00	Propane			Propane Forced Air		wood Stoves/Fireplace
	Online	0000000056	20220530	Own	Residential	5000.00	Propane			Propane Boiler (Hot Water Radiators)		
	Online	0000000057	20220530	Own	Residential	4000.00	Propane			Propane Forced Air Propane Forced Air		
	Online	0000000060	20220530	Own	Residential	35000.00	Propane			Propane Forced Air		Wood Forced Air
	Unine	000000000000000000000000000000000000000	20220530	Own	nesiuentiai	9999.00	woou					wood Forced Air

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M	thod	RecordNo	H2. How old is your	H3. How likely are you to replace	W1. What is the MAIN fuel	W1. What is the MAIN	W2. W2. How old is your water	W3. Is your water heater	W5. The purchase and installation of a typical natural gas	W5a. Natural Gas water heaters can also be rented. Typical monthly	H5. Converting your heating system to natural gas requires some initial
			heating system?	your heating system in the next 2	source for heating your	fuel source for heating	heater?	owned or rented?	water heater costs about \$1,700 including taxes depending	rental rates range from \$23 per month to \$30 per month including	investment by the property owner. The cost of converting a residential
				years? Are you? Extremely likely; Very likely' Likely: Not very likely: Not	water?	your water? (Other Specify)	o5 years or less	oOwned	on the complexity of the installation. However, with natural gas, you could save up to \$350 compared to propane water	taxes. Depending on the specific style of your premises, the property owner may incur additional expenses for the conversion. However,	heating system to a natural gas high efficiency furnace or boiler is in the range of \$4.500 to \$5.500 including taxes depending on the type of equipment you
				at all likely			o6 to 10 years old	oRented	heating costs, or \$100 compared to electric water heating	with natural gas, you could save up to \$350 compared to propane	currently have.
							o11 to 15 years old o16 to 25 years old	oDon't Know	costs. Considering this, how likely are you to convert your heating system to natural gas? Would you say?	water heating costs every year, or \$100 compared to electric water heating costs. Considering this, how likely are you to convert your	In addition to the cost of converting your beating equipment, an average
							oOver 25 years old			water heater to natural gas? Would you say you are?	home would be required to make a financial contribution toward the cost of
							oDon't know		Extremely likely	Extremely likely	constructing the pipeline, which will be split into monthly payments based on
									Likely	Very likely	approximately \$1,700 per year by switching oil heating equipment to natural
	6-#1	000000454	1.00	Mada and Phale	Planet de la		Ad as AF users and	Quand	Not very likely	Likely	gas. Savings are likely greater for businesses. Considering this, how likely are
	Cati	0000000418	9.00	Not at all likely	Electricity		5 years or less	Owned	Not at all likely		
	Cati	000000002	6.00	Likely	Propane		5 years or less	Rented		Likely	
	Cati	000000001	99.00 13.00	Not very likely Very likely	Electricity Other (SPECIEY)	WINTER WOOD POWER S	DK/NS (DO NOT READ)	Owned Owned	Not very likely Likely		
	Cati	000000271	3.00	Not at all likely	Propane		5 years or less	Owned	Very likely		
	Cati	000000005	99.00	Not at all likely	Other (SPECIFY)	IM NOT SURE	DK/NS (DO NOT READ)	Owned	Not at all likely		
	Cati	000000249	50.00	Likely Not at all likely	Electricity Propage		6 to 10 years old 6 to 10 years old	Owned	Not very likely Very likely		
	Cati	000000267	20.00	Likely	Electricity		DK/NS (DO NOT READ)	Owned	Likely		
	Cati	000000054	3.00	Not very likely	Electricity		5 years or less	Owned	Likely		
	Cati	000000092	1.00	Not at all likely Likely	Electricity		5 years or less 5 years or less	Owned	Not at all likely Likely		
	Cati	000000590	5.00	Not very likely	Propane		5 years or less	Owned	Extremely likely		
	Cati	000000527	22.00	Not at all likely	Oil		5 years or less	Owned	Not at all likely		Not at all likely
	Cati	0000000475	25.00	Not very likely Extremely likely	Electricity		5 years or less 11 to 15 years old	Owned	Not very likely Extremely likely		
	Cati	000000163	19.00	Very likely	Electricity		11 to 15 years old	Owned	Very likely		
	Cati	0000000115	15.00	Not very likely	Electricity		6 to 10 years old	Owned	Likely		
	Cati	0000000124	1.00	Not at all likely	Electricity		5 years or less 5 years or less	Owned	Not very likely		
	Cati	000000064	20.00	Very likely	Electricity		5 years or less	Owned	Very likely		
	Cati	000000198	30.00	Likely	Electricity		11 to 15 years old	Rented	Net at all Plants	Not very likely	Not very likely
	Cati	0000000114	15.00	Very likely	Oil		5 years or less	Rented	not at all likely	Not at all likely	Not very likely
	Cati	000000135	8.00	Not at all likely	Wood		Over 25 years old	Owned	Likely		
	Cati Cati	000000096	25.00	Extremely likely	Oil		16 to 25 years old	Owned Rented	Very likely	Likaly	
	Cati	0000000514	15.00	Not very likely	Electricity		5 years or less	Owned	Not at all likely	Likely	Not at all likely
	Cati	000000565	7.00	Not at all likely	Electricity		6 to 10 years old	Owned	Not at all likely		
	Cati	000000395	5.00	Not very likely	Propane		5 years or less	Owned	Not very likely		
	Cati	0000000071	20.00	Not very likely	Electricity		6 to 10 years old	Owned	Not at all likely		Not very likely
	Cati	000000074	2.00	Not at all likely	Geothermal/Ground source		5 years or less	Owned	Not at all likely		
	Cati	0000000149	10.00	Not very likely	Electricity		11 to 15 years old	Owned	Not very likely		
	Cati	000000025	98.00	Very likely	Electricity		6 to 10 years old	Owned	Likely		
	Cati	000000047	45.00	Extremely likely	Electricity		5 years or less	Owned	Not at all likely		
	Cati	0000000173	20.00	Extremely likely	Electricity		6 to 10 years old DK/NS (DO NOT READ)	Owned	Likely		
	Cati	0000000091	25.00	Not at all likely	Electricity		6 to 10 years old	Owned	Not at all likely		
	Cati	000000156	5.00	Not very likely	Electricity		6 to 10 years old	Owned	Likely		
	Cati	0000000481	6.00	Likely Not at all likely	Electricity		5 years or less	Owned	Very likely Likely		
	Cati	0000000506	1.00	Extremely likely	Propane		5 years or less	Owned	Not at all likely		
	Cati	0000000499	5.00	Not at all likely	Electricity		6 to 10 years old	Rented		Not at all likely	
	Cati	0000000492	6.00	Very likely Very likely	Electricity		DK/NS (DO NOT READ) 5 years or less	Owned Owned	Not at all likely Very likely		Very likely
	Cati	0000000448	4.00	Not at all likely	Electricity		6 to 10 years old	Owned	Not at all likely		Not at all likely
	Cati	000000455	15.00	Very likely	Electricity		11 to 15 years old	Owned	Not at all likely		Very likely
	Cati	0000000452	20.00	Very likely Likely	Electricity		5 years or less 5 years or less	Owned Owned	Likely		
	Cati	0000000543	12.00	Likely	Electricity		11 to 15 years old	Owned	Very likely		
	Cati	000000350	9.00	Not at all likely	Propane		6 to 10 years old	Owned	Not at all likely		
	Online	0000000004	4.00	Extremely likely	Electricity		5 years or less	Owned	Likely		
	Online	000000006	12.00	Likely	Electricity		11 to 15 years old	Owned	Likely		
	Online	000000007	99.00	Not very likely	Electricity		6 to 10 years old	Owned	Very likely		
	Online	000000008	4.00	DK/NS (DO NOT READ)	Electricity		11 to 15 years old	Owned	Very likely		
	Online	000000016	6.00	Extremely likely	Electricity		16 to 25 years old	Owned	Extremely likely		
	Online Online	0000000017	98.00	Not at all likely DK/NS (DD NOT READ)	Electricity Propage		11 to 15 years old 5 years or less	Owned Owned	Very likely Extremely likely		
	Online	0000000019	32.00	Extremely likely	Electricity		6 to 10 years old	Owned	Very likely		
	Online	000000025	99.00	Not at all likely	Electricity		6 to 10 years old	Owned	Not at all likely		
	Online	000000026	99.00	Very likely Extremely likely	Electricity		11 to 15 years old	Owned	Very likely		Titaly
	Online	0000000027	14.00	Not very likely	Propane		11 to 15 years old	Owned	Likely		Lincip
	Online	000000029	12.00	Very likely	Electricity		5 years or less	Owned	Not very likely		Extremely likely
	Online	000000031	99.00	Very likely Not at all likely	Electricity		6 to 10 years old	Owned	Extremely likely		
	Online	0000000033	20.00	Not very likely	Electricity		11 to 15 years old	Owned	Likely		
	Online	000000034	28.00	Extremely likely	Electricity		6 to 10 years old	Owned	Likely		
	Online	000000035	7.00	Not at all likely Not at all likely	Electricity		5 years or less	Owned	Very likely		
	Online	000000037	6.00	Not at all likely	Electricity		6 to 10 years old	Owned	Very likely		
	Online	000000039	5.00	Not at all likely	Electricity		5 years or less	Rented		Likely	
	Online Online	000000041	4.00	Not very likely Not very likely	Electricity Propage		11 to 15 years old 5 years or less	Owned Owned	Very likely Extremely likely		
	Online	0000000043	10.00	DK/NS (DO NOT READ)	Propane		DK/NS (DO NOT READ)	Owned	Extremely likely		
	Online	000000044	99.00	Not at all likely	Electricity		5 years or less	Owned	Likely		
	Online	000000045	5.00	Not at all likely Very likely	Electricity		5 years or less 6 to 10 years old	Owned	Likely Very likely		
	Online	0000000049	10.00	Likely	Electricity		6 to 10 years old	Owned	Likely		
	Online	000000050	8.00	Not at all likely	Electricity		11 to 15 years old	Owned	Very likely		
	Online Online	0000000051	12.00	Not very likely Not at all likely	Electricity Propage		11 to 15 years old 5 years or less	Owned Owned	Not very likely Extremely likely		
	Online	0000000054	3.00	Not at all likely	Other (SPECIFY)	Propane. We have 2 propa	n 6 to 10 years old	Rented	f ===f	Not very likely	
	Online	000000055	98.00	Not very likely	Electricity		5 years or less	Owned	Very likely		
	Online Online	000000056	98.00 8.00	Extremely likely Not very likely	Propane Electricity		5 years or less 5 years or less	Owned Owned	Extremely likely Very likely		
	Online	0000000058	4.00	Very likely	Electricity		5 years or less	Owned	Very likely		
	Online	000000060	5.00	Likely	Electricity		6 to 10 years old	Owned	Very likely		
	Unline	000000061	36.00	Likely	Electricity		b to 10 years old	Owned	Likely		

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Method	RecordNo	H5a. Converting your heating system to natural gas requires some initial investment	H6. Converting your heating system to natural gas requires	H7. Converting your heating system to	H7a. Installing a high efficiency natural gas furnace is likely to cost	H8. Installing a high efficiency natural ga	s H5 - WWH. Converting your heating system to natural gas requires some	H5a - WWH. Converting your heating system to natural
		by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace is in the range of \$4,500 to \$5,500 including taxes	some initial investment by the property owner. The cost of	natural gas requires some initial	about \$4,500-\$5,500 if you already have forced air ductwork and \$12,500 if you don't, including taxes. A natural gas finance or wall	furnace or boiler is likely to cost about \$4,500-\$5,500 if you already have forced	initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace or	gas requires some initial investment by the property owner. The cost of converting a residential heating
		depending on the type of equipment you currently have.	in the range of \$400 to \$1,000 including taxes depending on	cost of converting a residential heating	heater would also cost about \$4,500-\$5,500.	air ductwork or a boiler, and \$12,500 if	boiler is in the range of \$4,500 to \$5,500 including taxes depending on	system to a natural gas high efficiency furnace is in the
		In addition to the cost of converting your heating equipment, an average home	the type of equipment you currently have.	system to a high efficiency natural gas furnace and adding ducting is likely to be	In addition to the cost of converting your heating equipment, an	you were to install a new forced air system requiring ductwork, including	the type of equipment you currently have.	range of \$4,500-\$5,500 including taxes depending on the type of equipment you currently have.
		would be required to make a financial contribution toward the cost of constructing	In addition to the cost of converting your heating equipment, an average home would be required to make a financial	about \$12,500 including taxes depending	average home would be required to make a financial contribution toward the cost of constructing the similar which will be call into	taxes. Alternatively, a natural gas	In addition to the cost of converting your space and water heating, an	In addition to the cost of converting your space and water
		use. With the surcharge added, an average home will save approximately <eganville =<="" td=""><td>contribution toward the cost of constructing the pipeline,</td><td>premise. Another option would be to</td><td>monthly payments based on how much gas you use. With the</td><td>\$4,500-\$5,500.</td><td>the cost of constructing the pipeline, which will be split into monthly</td><td>heating, an average home would be required to make a</td></eganville>	contribution toward the cost of constructing the pipeline,	premise. Another option would be to	monthly payments based on how much gas you use. With the	\$4,500-\$5,500.	the cost of constructing the pipeline, which will be split into monthly	heating, an average home would be required to make a
		\$250, Cedar Springs = \$300> per year by switching electric heating equipment to natural gas. Savings are likely greater for businesses. Considering this, how likely are	which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will	install a natural gas fireplace or space heater to heat the main living area, at an	surcharge added, savings will likely be minimal from switching your wood-fired heating equipment to natural gas. However, you	In addition to the cost of converting you	payments based on how much gas you use. With the surcharge added, an r average home will save approximately \$2,250 per year by switching space	financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based
Cati	000000461	you to convert your heating system to natural gas? Would you say?	save approximately \$1,000 per year by switching heating	estimated cost of \$4,500-\$5,500.	wouldn't need to split or store wood. Considering this, how likely	heating equipment, an average home	and water heating to natural gas. Savings are likely greater for	on how much gas you use. With the surcharge added, an
Cati	0000000418		rest very metry		Not at all likely			
Cati Cati	0000000002			Not at all likely			Likely	
Cati	000000273							
Cati	0000000271					Not at all likely		
Cati	000000249	Not very likely						
Cati	000000264						Likely	
Cati	000000054		Not at all likely					
Cati	0000000092		Not as an incry				Likely	
Cati	0000000590							
Cati	0000000475			Not at all likely				
Cati Cati	000000085 000000163						Extremely likely Very likely	
Cati	0000000115						19-to	
Cati	0000000124				Not very likely		LINCEY	
Cati	0000000064						Very likely	
Cati	0000000198				Very likely			
Cati	0000000114							
Cati	000000096						Very likely	
Cati Cati	000000077 0000000514						Likely	
Cati	000000565				Not at all likely			
Cati Cati	000000395 000000587		Likely					
Cati	000000071					Not at all Physics		
Cati	0000000149		Extremely likely			NOT at all likely		
Cati	0000000174							
Cati	0000000047	Not at all likely						
Cati	0000000173						Likely	
Cati	000000091				Not at all likely			
Cati Cati	0000000156 0000000481							
Cati	000000428							
Cati	0000000499		Extremely likely Not at all likely					
Cati	0000000492							
Cati	0000000428							
Cati	0000000455						likely	
Cati	000000321							
Cati Cati	0000000543				Not at all likely		Likely	
Online	000000003							
Online	0000000006							
Online	0000000007							
Online	0000000009							
Online Online	0000000016 0000000017							
Online	000000018						Parameter Harbo	
Online Online	0000000019 0000000025					Not at all likely	Extremely likely	
Online	000000026						Extremely likely	
Online	0000000028							
Online	0000000029						Extremely likely	
Online	000000032		Not at all likely					
Online Online	000000033 00000034						Likely	
Online	000000035		19-1-					
Online	000000037		Likely					
Online	0000000039							
Online	0000000041							
Online	0000000043							
Online	0000000044							
Online Online	0000000047							
Online	0000000050							
Online Online	0000000051 0000000052		Likely					
Online	000000054				Very likely			
Online Online	0000000055 0000000056							
Online	000000057							
Online	0000000060							

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Method	RecordNo	H6 - WWH. Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting your existing heating system to natural gas is likely in the range of \$400 to \$1,000 including taxes depending on the type of equipment you currently have.	H7 - WWH. Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a high efficiency natural gas furnace and adding ducting is likely to be about \$32-500 invluding tweet	H7a - WWH, Installing a high efficiency natural gas furnace is likely to cost about \$4,500-\$5,500 if you already have forced air ductwork and \$21,500 if it doesn't, including taxes. A natural gas fireplace or wall heater would also cost about \$4,500-\$5,500.	N8 - WWH. Installing a high efficiency natural gas furnace or boiler is likely to cost about \$4,500-\$5,500 if you already have forced air ductowch or a boiler, and \$12,500 if you were to install a new forced air system requiring ductowch, including taxes. Alternatively, a natural gas fireplace or wall heater would cost about \$4,500 - 55.500.	H9a. You indicated that you are unlikely to convert your heating system to natural gas. Can you explain why? (PROBE) Are there any other reasons?	H9a. You indicated that you are unlikely to convert your heating system to natural gas. Can you explain why? (PROBE) Are there any other reasons? (VERBATIM ANSWERS STOP	E1. You indicated that you are likely to convert to natural gas. Assuming gas service is available Prior to 2026, when would you likely convert? Within the first 12 months Within 110 z years	E2. I am going to read you a list of appliances that could be powered by natural gas. For each appliance, please tell me if you would be extremely interested, you interested	E2 Oven, Range or Stove	E2 Clothes Dryer
		In addition to the cost of converting your space and water heating, an average home would be required to make a	depending on the specific style and/or size of your premise. Another option	In addition to the cost of converting your space and water heating, an average home	In addition to the cost of converting your space and		THOSE WHO ANSWERED "OTHER")	Within 2 to 3 years After 3 years	interested, not very interested, not very interested or not at all		
		financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based	would be to install a natural gas fireplace or space heater to heat the main living	would be required to make a financial contribution toward the cost of constructing	water heating, an average home would be required to make a financial contribution toward the cost of				interested in natural gas for the appliance.		
Cati	0000000461	on how much gas you use. With the surcharge added, an	area, at an estimated cost of \$4,500-	the pipeline, which will be split into	constructing the pipeline, which will be split into	Other: (SPECIFY)	OUR FURNACE IS NOT VERY	OLD. WE ARE HAPPY WITH OUR HEATING C	(RANDOMIZE) OSTS		
Cati Cati	0000000418					Too expensive		Within 1 to 2 years	Extremely interested	Extremely interested	Extremely interested
Cati	0000000001			Likely		Not interested/ have no plans to change		Within the first 17 m 44-	Interested	Net at all interests *	Interested
Cati	0000000273	Very likely		Likely				Within 1 to 2 years	Not at all interested	Not very interested	Not very interested
Cati Cati	0000000005 000000249					Not interested/ have no plans to change					
Cati	0000000264	Very likely						Within the first 12 months	Very interested	Interested	Interested
Cati	0000000054	Extremely likely						Within the first 12 months	Interested	Interested	Interested
Cati Cati	0000000050 000000092					Too expensive		Within 1 to 2 years	Not at all interested	Not at all interested	Not at all interested
Cati	0000000590	Likely				Other: (SDECIEV)	AS LONG AS WE CAN GET O	Within the first 12 months	Extremely interested	Not very interested	Interested
Cati	0000000475					Not worth it	AS LONG AS WE CAN GET C	IL WE HAVE NO REAGON TO CHANGE. THE P	NICE WOOLD HAVE TO GO OF	AN AWFOL LOT.	
Cati Cati	000000085 000000163							Within 1 to 2 years Within the first 12 months	Not at all interested Interested	Not at all interested Not very interested	Not at all interested Not very interested
Cati	0000000115			Likely				Within the first 12 months Within 2 to 3 years	Extremely interested	Interested Very interested	Interested
Cati	0000000123					Other: (SPECIFY)	HOUSE IS 4 YRS OLD. I HAVI	AN OUTDOOR WOOD FURNACE. FROM A P	RACTICAL STANDPOINT IT WO	DULDN'T BE IDEAL. I UNDERSTAND WHY	NATURAL GAZ WOULD BE SUITABLE FOR OTH
Cati Cati	0000000198					Other: (SPECIFY)	IM OLD GOING TO A SENIO	within the first 12 months R HOME	UN/NS (DU NOT READ)	NOT VERY INTERESTED	Not very interested
Cati	0000000125					Other: (SPECIFY)	THEY AREN'T TELLING ME	Within the first 12 months VHAT THE COSTS ARE.	Not at all interested	Not at all interested	Not at all interested
Cati	0000000135			Not very likely		Other: (SPECIFY)	MY HOUSE IS PLUMBED WI	TH HOT WATER AND I'M A LOGGER SO WOO	D IS EASY FOR ME TO COME I	BY.	later and
Cati Cati	00000000077							within 1 to 2 years	NOT AT All Interested DK/NS (DO NOT READ)	Not at all interested	Interested Not at all interested
Cati Cati	0000000514					Not interested/ have no plans to change Not interested/ have no plans to change					
Cati	000000395				Potenciala Photo			Within 1 to 2 years	Not very interested	Not very interested	Not very interested
Cati Cati	0000000587 0000000071				Extremely likely	Not interested at this time/ maybe in the future		Within the first 12 months	UK/NS (DO NOT READ)	Extremely interested	Extremely interested
Cati	000000074							Within the first 12 months	DK/NS (DO NOT READ)	Not very interested	Not very interested
Cati	0000000174	Mary Block			Likely			Within 2 to 3 years	Very interested	Very interested	Not at all interested
Cati	0000000025	Very likely				Other: (SPECIFY)	MY HUSBAND IS IN THE HEA	Within the first 12 months ATING SYSTEM. THAT IS WHAT HE DOES FOR	Not very interested A LIVING. AND WE WOULD N	OT CONSIDER SWITCHING	Very interested
Cati Cati	0000000173 0000000159			Not at all likely		Other: (SPECIFY)	BUT A BRAND NEW FURNA	Within the first 12 months CE IN	Not very interested	Not very interested	Not very interested
Cati	000000091	Disk				Other: (SPECIFY)	WE ARE GOING TO HAVE TO	SELL OUR PLACE AND MY WIFE IS REALLY S	ICK	Notice Schemeted	1.4
Cati	0000000156	Very likely						Within 1 to 2 years	Very interested	Interested	Interested
Cati Cati	0000000428 0000000506			Extremely likely				Within the first 12 months Within the first 12 months	Not at all interested DK/NS (DO NOT READ)	Interested DK/NS (DO NOT READ)	Not at all interested DK/NS (DO NOT READ)
Cati	0000000499					Not interested/ have no plans to change		Within the first 17 months	Not very interested	Not at all interacted	Not at all interested
Cati	0000000432		Very likely					After 3 years	Not at all interested	Not at all interested	Not at all interested
Cati Cati	0000000448 0000000455					Other: (SPECIFY)	NEW FURNACE. SAFETY CO	NCERNS. LEARY OF NATURAL GAS Within the first 12 months	Very interested	Not at all interested	Not very interested
Cati	0000000452	likely						Within 1 to 2 years After 3 years	Not very interested Interested	Not very interested Not at all interested	Not very interested Not at all interested
Cati	000000543							Within the first 12 months	Interested	Interested	Interested
Online	0000000350				Likely	Other: (SPECIFY)	THAVE A WOOD LOT AND A	Within the first 12 months	Extremely interested	Extremely interested	DK/NS (DO NOT READ)
Online	0000000004	Very likely			Very likely			Within the first 12 months Within the first 12 months	Not at all interested Not very interested	Not at all interested Interested	Not at all interested Interested
Online	000000007	Extremely likely						Within the first 12 months	Not very interested	Very interested	Not very interested
Online	0000000009	Very likely						Within the first 12 months	Very interested	Very interested	Interested
Online Online	0000000016 0000000017	Very likely Extremely likely						Within the first 12 months Within the first 12 months	Extremely interested Not very interested	Extremely interested Not very interested	Extremely interested Interested
Online	000000018	Extremely likely						Within the first 12 months Within the first 12 months	Extremely interested	Extremely interested	Extremely interested
Online	0000000025								, moreneu		
Online Online	000000026 000000027							Within the first 12 months Within 2 to 3 years	Extremely interested Not very interested	Very interested Not at all interested	Interested Not at all interested
Online	000000028	Very likely						Within the first 12 months Within the first 12 months	Not at all interested Not very interested	Extremely interested Not very interested	Extremely interested Not very interested
Online	000000031							Within the first 12 months	Very interested	Interested	Interested
Online	000000032	Likely				Not interested/ have no plans to change		Within the first 12 months	Very interested	Not very interested	Not very interested
Online	0000000034	Extremely likely						Within the first 12 months Within the first 12 months	Not at all interested Extremely interested	Not at all interested Interested	Not at all interested Not very interested
Online	000000036	A face fields						Within 2 to 3 years	Not at all interested	Not at all interested	Not at all interested
Online	000000037	very intely Likely						Within the first 12 months Within the first 12 months	Extremely interested Not very interested	Extremely interested Not at all interested	very interested Not very interested
Online Online	0000000041 000000042	Extremely likely Extremely likely						Within the first 12 months Within the first 12 months	Extremely interested Not at all interested	Not at all interested Extremely interested	Interested Interested
Online	000000043	Very likely						Within the first 12 months	Not very interested	Not very interested	Not very interested
Online	0000000044	Likely						Within 2 to 3 years	Not at all interested	Not at all interested	Not at all interested
Online Online	0000000047	Likely Verv likely						Within the first 12 months Within the first 12 months	Very interested Not very interested	Extremely interested Interested	DK/NS (DO NOT READ) Interested
Online	0000000050	Very likely						Within the first 12 months	Interested	Very interested	Not very interested
Online	000000051	Extremely likely						Within the first 12 months Within the first 12 months	Not at all interested Not at all interested	Not at all interested Not at all interested	Not at all interested Not at all interested
Online Online	0000000054	Very likely						Within the first 12 months Within the first 12 months	DK/NS (DO NOT READ) Interested	DK/NS (DO NOT READ) Interested	DK/NS (DO NOT READ) Not very interested
Online	000000056	Extremely likely						Within the first 12 months	Extremely interested	Extremely interested	Extremely interested
Online	0000000058	Extremely likely						Within the first 12 months	Very interested	Very interested	Not very interested
Online Online	0000000060 000000061	Very likely		Likely				Within the first 12 months Within 1 to 2 years	Extremely interested Interested	Interested Interested	Interested Interested

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Method	RecordNo	E2 BBQ	E2 (Other, Specify)	E2 (Other, Specify)	D1. Which of the following best describes the style of your house? Is it a?	D2. In order to have some idea as to the approximate	D3. In what year was you house built? Your best	r D3a. Which statement best describes the occupancy of this dwelling?	D3B. For approximately how many months did you use th	w D4. How many adults his years or over do you	18 D5. And how many children 17 years or	D6. In what were you bo	rear D6a. Can you please tell n? me into which of the	D7. And lastly, which of the following best describes your total household income	E1. How many addi this location?)	itional buildings (are at Other (Specify)
					of hundless or one sters much	size of your home in square	estimate is fine. [ENTER	if a Occurried all upper cound	residence during 2017 2021	have living in your	younger, if any, do yo	ou [RECORD YEA	R] following age groups you	u before taxes?	0000	
					oA raised ranch	unfinished basement) can you	you Don't know	oOccupied mostly in the summer		yourself?	household?		Tall: Are you	oUnder \$20,000	оТwo	
					oA split level	tell me how many square feet		months					o18 to 24	o\$20,000 to less than \$40,000	oThree	
					oA three-story house	your nome is:		oOccupied occasionally year round					o35 to 44	o\$60,000 to less than \$80,000	oPart of a building	
					oSome other style			oDon't know					o45 to 54	o\$80,000 to less than \$100,000	oDon't know	
													o65 or over	o\$120,000 to less than \$120,000	UKEIUSE	
Cati	0000000461				A bungalow or one steps spech	00000.0	1075 (	20. Occupied all upper round			- 00	3.00 0	oRefuse	o\$140,000 or more		
Cati	0000000418				A building of one story function		. 1975.	oo occupica un year round		-		2.00 5.	55.00 NEI 0525	NEI OSED		One
Cati	000000002	Extremely interested	None/No other appliance		A bungalow or one story ranch	99999.0	9999.0	00 Occupied all-year round		1	.00	1.00 19	99.00	Under \$20,000		
Cati	0000000273	Very interested	None/No other appliance		A spiit level	99999.0	1975.	uu occupied all-year round		-	.00	2.00 19	65.00	\$120,000 to less than \$140,000		Two
Cati	000000271	Interested	None/No other appliance		A bungalow or one story ranch	1500.0	2004.0	00 Occupied all-year round		1	.00	0.00 19	44.00	\$20,000 to less than \$40,000		
Cati	000000005				A bungalow or one story ranch	9999.0 2000.0	1996.0	00 Occupied all-year round		2	.00	0.00 99	99.00 55 to 64	REFUSED \$60,000 to lass than \$80,000		
Cati	0000000264	Very interested	None/No other appliance		A two story	9999.0	1950.0	00 Occupied all-year round		-	.00	3.00 19	73.00	\$140,000 or more		
Cati	0000000267	Not very interested	None/No other appliance		A two story	1300.0	1963.0	00 Occupied all-year round		1	.00	3.00 19	78.00	REFUSED		
Cati	0000000050	interesteu	None/No other appliance		A bungalow of one story ranch	1750.0	2015.0	00 Occupied all-year round		-	.00	1.00 19	53.00	\$40,000 to less than \$40,000 \$40,000 to less than \$60,000		
Cati	000000092	Not at all interested	None/No other appliance		A bungalow or one story ranch	2000.0	1970.0	00 Occupied all-year round		1	.00	0.00 19	52.00	\$20,000 to less than \$40,000		
Cati	0000000590	Extremely interested	None/No other appliance		A bungalow or one story ranch A bungalow or one story ranch	3000.0	2017.0	JU Occupied all-year round		-	.00	0.00 19	48.00	\$60,000 to less than \$80,000 REFLISED		
Cati	0000000475				Or a three story house	2800.0	1964.0	00 Occupied all-year round		-	.00	0.00 19	64.00	Under \$20,000		
Cati	000000085	Very interested	None/No other appliance		A bungalow or one story ranch	1100.0	1958.0	00 Occupied all-year round		-	.00	0.00 19	54.00	\$20,000 to less than \$40,000		
Cati	0000000115	Interested	None/No other appliance		A bungalow or one story ranch	1354.0	1948.0	00 Occupied all-year round		-	.00	0.00 19	45.00	\$20,000 to less than \$40,000 \$20,000 to less than \$40,000		
Cati	000000124	Very interested	Other Appliance	FRIDGE	A two story	1900.0	1910.0	00 Occupied all-year round		1	.00	2.00 19	83.00	\$40,000 to less than \$60,000		
Cati	0000000123	IERS AND A PLUS FOR OUI	None/No other appliance	OR ME	A bungalow or one story ranch Some other style	2200.0	0 2018.0	00 Occupied all-year round 00 Occupied all-year round			.00	0.00 99	45.00 65 or over	\$20.000 to less than \$40.000		
Cati	0000000198				A two story	2700.0	1974.0	00 Occupied all-year round		1	.00	0.00 19	48.00	\$20,000 to less than \$40,000		
Cati	0000000125	Not at all interested	Other Appliance	FURNACE	Some other style	999.0	9999.0	00 Occupied all-year round		1	.00	0.00 19	51.00	\$40,000 to less than \$60,000 \$30,000 to less than \$40,000		
Cati	0000000114				A two story	2600.0	1895.0	uo occupied all-year round		-	.00	0.00 19	50.00	\$20,000 to less than \$40,000		Refuse
Cati	000000096	Interested	None/No other appliance		Or a three story house	1800.0	1910.0	00 Occupied all-year round		:	.00	0.00 19	47.00	\$40,000 to less than \$60,000		
Cati	000000077	Interested	None/No other appliance		A bungalow or one story ranch A bungalow or one story ranch	1600.0	) 1976.0 ) 1970.0	00 Occupied all-year round 00 Occupied all-year round		1	.00	0.00 19	52.00 53.00	\$60,000 to less than \$80,000 \$80,000 to less than \$100,000		
Cati	0000000565				Some other style	750.0	2015.0	00 Occupied all-year round		1	.00	0.00 19	52.00	Under \$20,000		
Cati	000000395	Not very interested	None/No other appliance		A bungalow or one story ranch	1000.0	1955.0	00 Occupied all-year round		1	.00	0.00 19	44.00	\$40,000 to less than \$60,000		0
Cati	0000000071	Extremely interested	None/No other appliance		A bungalow or one story ranch	1400.0	1890.0	00 Occupied all-year round		t	.00	0.00 19	39.00	\$80,000 to less than \$100,000		One
Cati	000000074				A bungalow or one story ranch	99999.0	1959.0	00 Occupied all-year round		99	.00 9	99.00 99	99.00 REFUSED	REFUSED		
Cati Cati	0000000149 0000000174	Not very interested Interested	None/No other appliance None/No other appliance		A raised ranch A two story	1200.0	) 1996.0 ) 1984.0	00 Occupied all-year round 00 Occupied all-year round		1	.00	0.00 19	42.00 99.00 65 or over	REFUSED		
Cati	000000025	Very interested	None/No other appliance		A bungalow or one story ranch	1200.0	1972.0	00 Occupied all-year round		:	.00	0.00 19	54.00	\$100,000 to less than \$120,000		
Cati	000000047	Not at all interested	None/No other appliance		A two story	1400.0	1945.0	00 Occupied all-year round		-	.00	0.00 19	62.00	\$40,000 to less than \$60,000		
Cati	0000000159	Not be an interested	Noney No outer appliance		A bungalow or one story ranch	1200.0	1969.0	00 Occupied all-year round		10	.00	1.00 19	86.00	\$20,000 to less than \$40,000		
Cati	000000091				A bungalow or one story ranch	1000.0	1976.0	00 Occupied all-year round		1	.00	0.00 19	43.00	\$20,000 to less than \$40,000		
Cati	0000000156	Not very interested Very interested	None/No other appliance None/No other appliance		A two story A two story	4000.0	) 9999.0 ) 1985.0	00 Occupied all-year round 00 Occupied all-year round		-	.00	3.00 19	44.00 53.00	REFUSED \$120,000 to less than \$140,000		
Cati	0000000428	Not at all interested	Other Appliance	FRIDGE	A bungalow or one story ranch	2900.0	9999.0	00 Occupied all-year round		1	.00	0.00 19	54.00	REFUSED		
Cati	0000000506	Interested	None/No other appliance		Some other style A bungalow or one story ranch	3300.0	1990.0	00 Occupied all-year round 00 Occupied all-year round		2	.00	0.00 19	52.00 59.00	\$40,000 to less than \$60,000 REFLISED		
Cati	0000000492	Not very interested	None/No other appliance		Some other style	99999.0	1970.0	00 Occupied all-year round			.00	0.00 19	36.00	\$20,000 to less than \$40,000		
Cati	0000000426	Not at all interested	Other Appliance	A FURNACE		4000.0	4053	20. Out - 14 - 11 - 14 - 14 - 14 - 14 - 14 - 1					c2.00	DECISED.		One
Cati	0000000455	Very interested	None/No other appliance		A two story A bungalow or one story ranch	1300.0	2005.0	00 Occupied all-year round 00 Occupied all-year round		-	.00	0.00 19	52.00	REFUSED		
Cati	000000452	Not very interested	None/No other appliance		A bungalow or one story ranch	1500.0	2002.0	00 Occupied all-year round		1	.00	0.00 19	54.00	\$40,000 to less than \$60,000		
Cati	0000000321	Not at all interested Interested	None/No other appliance None/No other appliance		A two story	1400.0	) 1941.0	00 Occupied all-year round		1	.00	0.00 19	41.00	\$20,000 to less than \$40,000		One
Cati	000000350															One
Online	000000003	DK/NS (DO NOT READ)	None/No other appliance		A two story	99999.0	9999.0	00 Occupied all-year round		1	.00 9	99.00 99	99.00 65 or over	REFUSED		
Online	0000000004	Interested	None/No other appliance		A two story	2536.0	1980.0	D0 Occupied all-year round			.00	3.00 19	82.00	\$60,000 to less than \$80,000		
Online	000000007	Very interested	None/No other appliance		A two story	1600.0	1890.0	00 Occupied all-year round		:	.00	0.00 19	48.00	\$80,000 to less than \$100,000		
Online	000000008	Not very interested Very interested	None/No other appliance Other Appliance	Garage heater	A bungalow or one story ranch A two story	1200.0	) 1974.0 ) 1920.0	00 Occupied all-year round 00 Occupied all-year round		-	.00	0.00 19	93.00 89.00	\$80,000 to less than \$100,000 \$120,000 to less than \$140,000		
Online	000000016	Extremely interested	None/No other appliance		A bungalow or one story ranch	1200.0	1970.0	00 Occupied all-year round		4	.00	0.00 19	66.00	REFUSED		
Online	000000017	Not very interested	None/No other appliance		A two story A hungalow or one story ranch	1000.0	9999.0	00 Occupied all-year round		2	.00	1.00 19	87.00	\$60,000 to less than \$80,000 \$80,000 to less than \$100,000		
Online	0000000019	Interested	Other Appliance	Gas boiler for ga	ra A two story	4200.0	) 1904.0	00 Occupied all-year round		-	.00	1.00 19	74.00	\$140,000 or more		
Online	000000025	Interested	Other Application	Conort	A two story	3000.0	1920.0	00 Occupied all-year round		200	.00	3.00 19	84.00	\$140,000 or more		
Online	000000025	Not at all interested	None/No other appliance	Generator	A building on the story ranch A two story	2000.0	, 1989.0 ) 1949.0	00 Occupied mostly in the winter months 00 Occupied all-year round	10	.00 1	.00	5.00 19	85.00	\$80,000 to less than \$100,000		
Online	000000028	Very interested	None/No other appliance		A raised ranch	1200.0	2006.0	00 Occupied all-year round		1	.00 9	99.00 19	47.00	\$20,000 to less than \$40,000		
Online	000000029 000000031	Not very interested Extremely interested	None/No other appliance None/No other appliance		A bungalow or one story ranch A two story	1100.0 1400.0	1985.0 1937 (	UU Occupied all-year round DO Occupied all-year round		-	.00.9	0.00 19 99.00 14	45.00 88.00	\$40,000 to less than \$60,000 \$100,000 to less than \$120.000		
Online	000000032				A bungalow or one story ranch	99999.0	9999.0	00 Occupied all-year round		99	.00 9	99.00 99	99.00 55 to 64	REFUSED		
Online	000000033	Very interested	None/No other appliance		A bungalow or one story ranch	3200.0	1985.0	00 Occupied all-year round		-	.00	0.00 19	37.00	REFUSED		
Online	000000035	Interested	None/No other appliance		A two story	3400.0 1650.0	, 1994.0 ) 1882.0	00 Occupied all-year round		1	.00	0.00 19	37.00	\$40,000 to less than \$60,000		
Online	000000036	Not at all interested	None/No other appliance		A bungalow or one story ranch	1200.0	9999.0	00 Occupied all-year round		1	.00	0.00 99	99.00 45 to 54	REFUSED		
Online	000000037 000000039	Extremely interested Very interested	None/No other appliance None/No other appliance		A two story A bungalow or one story ranch	1400.0 900.0	) 1930.0 ) 9999.0	UU Occupied all-year round D0 Occupied all-year round			uu 9 00	99.00 19	68.00 99.00 REFUSED	\$140,000 or more REFUSED		
Online	0000000041	DK/NS (DO NOT READ)	Other Appliance	furnace	A bungalow or one story ranch	1400.0	1983.0	00 Occupied all-year round		-	.00	0.00 99	99.00 REFUSED	REFUSED		
Online	000000042	Extremely interested	Other Appliance None/No other appliance	GENERATOR , RE	FFA two story A two story	1600.0	1870.0	00 Occupied all-year round		-	.00	0.00 19	55.00 90.00	\$100,000 to less than \$120,000 \$80,000 to less than \$100,000		
Online	000000044	Not at all interested	None/No other appliance		Or a three story house	99999.0	9999.0	00 Occupied all-year round		-	.00	2.00 19	83.00	\$20,000 to less than \$40,000		
Online	000000045	Interested	None/No other appliance		A two story	1600.0	1940.0	00 Occupied all-year round		1	.00	0.00 19	53.00	\$60,000 to less than \$80,000		
Online	000000047	very interested Very interested	None/No other appliance None/No other appliance		A two story A two story	2500.0 1200.0	v 1980.0 ) 9999.0	uu occupied all-year round D0 Occupied all-year round		2		99.00 99	99.00 KEFUSED 64.00	KEFUSED \$20,000 to less than \$40,000		
Online	0000000050	Very interested	Other Appliance	GARAGE SPACE	HEA two story	2700.0	1983.0	00 Occupied all-year round		-	.00 9	99.00 19	62.00	\$100,000 to less than \$120,000		
Online	0000000051	Not at all interested Not very interested	None/No other appliance None/No other appliance		A two story A two story	1075.0	9999.0	00 Occupied all-year round		-	.00 9	99.00 19	62.00 57.00	\$60,000 to less than \$80,000 \$40,000 to less than \$60,000		
Online	0000000054	DK/NS (DO NOT READ)	None/No other appliance		A two story	3323.0	) 1871.0	D0 Occupied all-year round			.00	1.00 99	99.00 55 to 64	REFUSED		
Online	0000000055	Very interested	None/No other appliance		A bungalow or one story ranch	1500.0	2021.0	00 Occupied all-year round		1	.00	0.00 19	42.00	\$40,000 to less than \$60,000		
Online	0000000057	Extremely interested Extremely interested	None/No other appliance None/No other appliance		Or a three story house	1700.0 2500.0	2022.0 1891.0	DO Occupied all-year round DO Occupied all-year round		1	.00	1.00 19	78.00	\$40,000 to less than \$60,000 \$140,000 or more		
Online	000000058	Very interested	None/No other appliance		A two story	1800.0	1950.0	00 Occupied all-year round		1	.00 9	99.00 99	99.00 65 or over	REFUSED		
Online	000000061	Extremely interested Interested	None/No other appliance None/No other appliance		A split level A two story	2600.0 99999.0	, 1954.0 ) 1986.0	DO Occupied all-year round DO Occupied all-year round		-	.00	0.00 19	99.00 REFUSED	REFUSED		

M	ethod Rec	ordNo	E2. What is the approximate square footage of the indoor floor space of this building of including basement and storage, but not including parking or loading areas? Please consider only the area that is	E3. What is the age of the building at this location (of the first/second/third building)? o1 YEAR OR LESS, o2 TO 5 YEARS, o6 TO 10 YEARS, o11 TO 20 YEARS,	DB3. How many floors does the building have?
			affected by a heating system. Enter six 9s (999999) if Don't know	o21 TO 30 YEARS, o31 TO 40 YEARS, oMORE THAN 40 YEARS OLD, oDON'T KNOW	
	Cati	0000000461		UREFUSE	
	Cati	0000000418	1700.00	11 to 20 years	2.00
	Cati	0000000000			
	Cati	000000273	999999.00	More than 40 years old	2.00
	Cati	0000000271			
	Cati	0000000249			
	Cati	000000264			
	Cati	000000267			
	Cati	0000000054			
	Cati	000000092			
	Cati	000000590			
	Cati	0000000527			
	Cati	000000085			
	Cati	0000000163			
	Cati	0000000124			
	Cati	000000123			
	Cati	0000000198			
	Cati	000000125			
	Cati	0000000114			
	Cati	0000000096			
	Cati	000000077			
	Cati	0000000565			
	Cati	000000395			
	Cati	0000000587	10000.00	More than 40 years old	2.00
	Cati	0000000074			
	Cati	0000000149			
	Cati	0000000174			
	Cati	000000047			
	Cati	0000000173			
	Cati	0000000091			
	Cati	0000000156			
	Cati	0000000428			
	Cati	0000000506			
	Cati	0000000493			
	Cati	000000426	500.00	21 to 30 years	1.00
	Cati	0000000448			
	Cati	000000452			
	Cati	0000000321	4000.00	11 to 20 years	2.00
	Cati	000000350	2300.00	6 to 10 years	1.00
	Online	000000003			
	Online	000000004			
	Online	000000007			
	Online	000000008			
	Online	0000000016			
	Online Online	0000000017			
	Online	0000000019			
	Online	000000025			
	Online	0000000020			
	Online	000000028			
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	Online	0000000056			
	Online Online	0000000057			
	Online	0000000060			
	Online	000000061			
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Method	RecordNo	LtCallDt	SCR3. Do you own o rent this property?	or SCRS. Which of the following best describes the building (or buildings) at this location?	SCRE. On average, how much is your annual leating cost for this premise including taxes? Please enter 99999 if you would like to leave blank	HIA. What is the primary energy source of heat for this premise? Is IL.?	HIAO: Other [SPECIFY]	H18. What type of system provides the primary source of heat for this premise? Is It? (RESPONSES FOR OIL)	H18. What type of system provides the primary source of heat for this premise? Is k? (RESPONSES FOR PROPANE)	H1B. What type of system provides the primary source of heat for this premise? Is it: (RESPONSES FOR ELECTRICITY)	H1B. What type of system provides the primary source of heat for this premise? Is IL? (RESPONSES FOR WOOD)
Online Online	000000062 000000063	20220530 20220530	Own Own	Residential Residential	4000.00 2000.00	Propane Wood			Propane Forced Air		Outdoor wood furnace
Online	000000064	20220530	Own	Residential	99999.00 3300.00	Propane		Oil Forced Air	Propane Boiler (Hot Water Radiators)		
Online	0000000066	20220530	Own	Residential	99999.00	Oil		Oil Forced Air			
Online Online	000000067	20220530 20220530	Own	Residential Residential	3000.00 20000.00	Propane Propane			Propane Forced Air Propane Boiler (Hot Water Radiators)		
Online	000000071	20220531	Own	Residential	2400.00	Propane			Propane Forced Air		
Online Online	000000072	20220531 20220531	Own Own	Residential Farm	1000.00 99999.00	Heat pump such as a geothermal system Wood					Outdoor wood furnace
Online	000000076	20220531	Own	Both Residence and a Business Residential	10000.00	Propane			Propane Forced Air		Outdoor wood furnace
Online	000000080	20220531	Own	Residential	99999.00	Propane			Propane Forced Air		Outdoor wood furnace
Online	000000081	20220531 20220531	Own	Residential Residential	99999.00 99999.00	Wood		Oil Forced Air			Wood Stoves/Fireplace
Online	0000000083	20220531	Own	Both Residence and a Business	99999.00	Oil		Oil Forced Air			
Online Online	000000088 000000094	20220531 20220531	Own	Residential Residential	3000.00 1500.00	[DO NOT READ] Other (SPECIFY) Oil	Pellet Stove	Oil Forced Air			
Online	000000095	20220531	Own	Residential	99999.00	Oil		Oil Forced Air			
Online	000000095	20220531 20220531	Own	Residential	2800.00	Wood			Propane Forced Air		Wood Stoves/Fireplace
Online	000000098	20220531	Own	Residential	3200.00	Propane			Propane Boiler (Hot Water Radiators) Propane Forced Air		
Online	0000000102	20220601	Own	Residential	2500.00	Propane			Propane Forced Air		
Online	0000000103	20220601	Own	Residential	5000.00	Propane			Propane Forced Air Propane Forced Air		
Online	0000000105	20220601	Own	Residential	3500.00	Propane			Propane Boiler (Hot Water Radiators)		
Online Online	0000000107	20220601 20220601	Own	Residential Residential	3000.00 1000.00	Propane Wood			Propane fireplace		Outdoor wood furnace
Online	0000000110	20220601	Own	Residential	99999.00	Propane			Propane Forced Air		Weed Frend Ma
Online	0000000111	20220601 20220601	Own	Residential	2000.00 99999.00	Propane			Propane Forced Air		Wood Forced Air
Online	0000000116	20220601	Own	Residential	1700.00	Propane			Propane Forced Air		Wood Forced Air
Online	0000000118	20220601	Own	Residential	99999.00	Electricity				Electric Forced Air	Wood Forced All
Online	0000000119	20220601 20220601	Own	Residential Residential	2000.00	Propane			Propane Forced Air Propane Forced Air		
Online	0000000121	20220601	Own	Residential	3500.00	Propane			Propane Forced Air		
Online Online	0000000122	20220601 20220601	Own	Residential Residential	500.00 4000.00	Wood Propane			Propane Forced Air		Wood Forced Air
Online	000000124	20220602	Own	Residential	6000.00	[DO NOT READ] Other (SPECIFY)	Oil and pellet stove				
Online Online	0000000125 0000000126	20220602 20220602	Own Own	Both Residence and a Business Residential	3000.00 1800.00	Oil Oil		Oil Forced Air Oil Forced Air			
Online	0000000127	20220602	Own	Residential	99999.00	Oil		Oil Forced Air	Dronono Forced Air		
Online	0000000129	20220602	Own	Both Residence and a Business	99999.00	Propane			Propane Forced Air		
Online	0000000130	20220602	Own	Residential Residential	600.00 3500.00	(DO NOT READ) Other (SPECIFY) Propage	Wood & oil		Propage Forced Air		
Online	000000132	20220602	Own	Residential	1500.00	Propane			Propane Boiler (Hot Water Radiators)		
Online Online	0000000135 0000000136	20220602 20220602	Own	Residential Residential	80000.00 1500.00	Oil Propane		Oil Boiler (Hot Water Radiators)	Propane Boiler (Hot Water Radiators)		
Online	000000138	20220602	Own	Residential	4000.00	Oil		Oil Boiler (Hot Water Radiators)			
Online	000000139	20220602	Own	Residential	3600.00	Propane Propane			Propane Forced Air Propane Forced Air		
Online	0000000142	20220603	Own	Both Residence and a Business	30000.00	Propane			Propane Forced Air		Wood Staves /Sizephase
Online	0000000143	20220603	Own	Residential	30000.00	Propane			Propane Forced Air		wood scoves/Filleplace
Online	0000000145	20220603	Own	Residential	4500.00	Propane		Oil Forced Air	Propane Forced Air		
Online	0000000148	20220604	Own	Residential	2800.00	[DO NOT READ] Other (SPECIFY)	propane and oil	on order An			
Online Online	0000000149 0000000150	20220604 20220604	Own Own	Residential Residential	2000.00 99999.00	Propane Wood			Propane Forced Air		Wood Stoves/Fireplace
Online	0000000151	20220604	Own	Residential	4500.00	Electricity			Dropping Forced Air	Electric Baseboard	
Online	0000000152	20220604	Own	Residential	3500.00	Propane			Propane Forced Air		
Online	0000000154	20220605	Own	Residential	4000.00	Oil No beating		Oil Forced Air			
Online	0000000156	20220605	Own	Residential	30000.00	Oil		Oil Forced Air			
Online Online	0000000157 0000000158	20220605 20220605	Own Own	Residential Both Residence and a Business	2500.00 99999.00	Wood Propane			Propane Forced Air		Wood Forced Air
Online	0000000159	20220605	Own	Residential	3000.00	Oil	Dellaterate Deserve (	Oil Boiler (Hot Water Radiators)			
Online Online	0000000160	20220605 20220605	Own Own	Residential	2000.00 3500.00	LUG NOT READJ Other (SPECIFY) Electricity	reliet with Propane furnace for backup.			Electric Baseboard	
Online	0000000162	20220605	Own	Residential	1600.00	Wood		Oil Forced Air			Wood Forced Air
Online	0000000163	20220605 20220606	Own	Residential	3500.00	Propane		UII Forced Air	Propane Boiler (Hot Water Radiators)		
Online	0000000166	20220606	Own	Residential	2000.00	Propane			Propane Forced Air		
Online	0000000169	20220607	Own	Residential	2400.00	Heat pump such as a geothermal system			royalie roliceu All		
Online	0000000177	20220607	Own Own	Commercial	1500.00	Propane Oil		Oil Forced Air	Propane Forced Air		
Online	0000000183	20220608	Own	Residential	99999.00	No heating					
Online	0000000189	20220608 20220608	Own	Residential Residential	99999.00 2000.00	No heating Oil		Oil Forced Air			
Online	0000000191	20220608	Own	Residential	2500.00	Oil		Oil Forced Air			
Online Online	0000000194 0000000196	20220608 20220608	Own Own	Both Residence and a Business Residential	99999.00 10000.00	Wood Oil		Oil Forced Air			Wood Stoves/Fireplace
Online	0000000197	20220608	Own	Residential	99999.00	Propane			Propane Forced Air		
Online Online	0000000202	20220609 20220609	Own Own	Residential	4000.00 1200.00	Propane		UII FORCED AIR	Propane Forced Air		
Online	0000000204	20220609	Own	Residential	2500.00	Oil		Oil Forced Air			
Online	0000000205	20220609	Own	Residential	99999.00	Propane		on Soliei (not water Kadiators)	Propane Forced Air		
Online	000000207	20220609	Own	Residential	3120.00	Wood					Wood Forced Air

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M	ethod R	ecordNo	H2. How old is your	H3. How likely are you to replace	W1. What is the MAIN fuel	W1. What is the MAIN	W2. W2. How old is your water	W3. Is your water heater	W5. The purchase and installation of a typical natural gas	W5a. Natural Gas water heaters can also be rented. Typical monthly	HS. Converting your heating system to natural gas requires some initial
			heating system?	your heating system in the next 2	source for heating your	fuel source for heating	heater?	owned or rented?	water heater costs about \$1,700 including taxes depending	rental rates range from \$23 per month to \$30 per month including	investment by the property owner. The cost of converting a residential
				Very likely' Likely; Not very likely; Not	water?	Specify)	o5 years or less	oOwned	gas, you could save up to \$350 compared to propane water	owner may incur additional expenses for the conversion. However,	of \$4,500 to \$5,500 including taxes depending on the type of equipment you
				at all likely			of to 10 years old	oRented	heating costs, or \$100 compared to electric water heating	with natural gas, you could save up to \$350 compared to propane	currently have.
							o16 to 25 years old	opon t know	heating system to natural gas? Would you say?	heating costs. Considering this, how likely are you to convert your	In addition to the cost of converting your heating equipment, an average
							oOver 25 years old			water heater to natural gas? Would you say you are?	home would be required to make a financial contribution toward the cost of
							oDon't know		Extremely likely Very likely	Extremely likely	constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save
									Likely	Very likely	approximately \$1,700 per year by switching oil heating equipment to natural
	Online	000000062	98.00	DK/NS (DO NOT READ)	Electricity		11 to 15 years old	Owned	Not very likely	Likely	gas. Savings are likely greater for businesses. Considering this, how likely are
	Online	000000063	12.00	Extremely likely	Electricity		11 to 15 years old	Owned	Extremely likely		
	Online	000000064	2.00	Not at all likely	Propane		5 years or less	Owned	Not at all likely		
	Online	000000066	99.00	DK/NS (DO NOT READ)	Electricity		6 to 10 years old	Owned	Likely		
	Online	000000067	20.00	Extremely likely	Electricity		5 years or less	Owned	Extremely likely		
	Online	000000068	6.00	Not very likely	Propane		6 to 10 years old	Owned	Likely Very likely		
	Online	0000000072	21.00	Not very likely	Electricity		16 to 25 years old	Owned	Likely		
	Online	000000074	8.00	DK/NS (DO NOT READ)	Wood		5 years or less	Owned	Not very likely		
	Online	000000078	18.00	Not very likely	Electricity		11 to 15 years old	Owned	Likely		
	Online	000000080	2.00	DK/NS (DO NOT READ)	Electricity		DK/NS (DO NOT READ)	Owned	Not at all likely		
	Online	000000081	5.00	DK/NS (DO NOT READ)	Electricity		5 years or less	Owned	Not very likely		
	Online	000000083	10.00	Likely	Oil		DK/NS (DO NOT READ)	Rented	Lincip	Likely	
	Online	000000088	4.00	DK/NS (DO NOT READ)	Electricity		6 to 10 years old	Owned	Extremely likely		
	Online	000000094	23.00	Extremely likely	Dil		b to 10 years old DK/NS (DO NOT READ)	Owned	Extremely likely Extremely likely		
	Online	000000096	10.00	Not very likely	Propane		6 to 10 years old	Rented		Extremely likely	
	Online	000000097	30.00	Extremely likely	Electricity		5 years or less	Rented	13kalız	Extremely likely	
	Online	000000099	3.00	Extremely likely	Electricity		11 to 15 years old	Owned	Extremely likely		
	Online	000000102	7.00	Likely	Electricity		5 years or less	Owned	Very likely		
	Online	0000000103	99.00	DK/NS (DO NOT READ)	Propane		DK/NS (DO NOT READ)	Owned	Extremely likely		
	Online	0000000104	9.00	Not at all likely	Electricity		11 to 15 years old	Owned	Extremely likely		
	Online	000000107	6.00	Not at all likely	Electricity		5 years or less	Owned	Not very likely		
	Online	0000000109	10.00	Not very likely Not very likely	Propane		6 to 10 years old 6 to 10 years old	Owned	Not very likely Extremely likely		
	Online	0000000111	15.00	Extremely likely	Electricity		5 years or less	Owned	Very likely		
	Online	0000000115	3.00	Not at all likely	Propane		5 years or less	Owned	Extremely likely		
	Online	0000000118	5.00	Very likely	Electricity		5 years or less	Owned	Likely		
	Online	000000118	35.00	Very likely	Electricity		16 to 25 years old	Owned	Very likely		
	Online	0000000119	2.00	Not at all likely Not at all likely	Electricity		5 years or less 6 to 10 years old	Owned	Very likely Extremely likely		
	Online	0000000121	9.00	Not at all likely	Electricity		5 years or less	Owned	Extremely likely		
	Online	000000122	10.00	Very likely	Electricity		6 to 10 years old	Owned	Extremely likely		
	Online	0000000123	4.00	Not at all likely DK/NS_(DO NOT READ)	Electricity		5 years or less 6 to 10 years old	Owned Owned	Very likely Not very likely		
	Online	000000125	6.00	Likely	Electricity		6 to 10 years old	Owned	Likely		
	Online	0000000126	18.00	DK/NS (DO NOT READ)	Electricity		5 years or less	Owned	Likely		And at all Plants
	Online	0000000127	4.00	Not very likely Likely	Electricity		5 years or less 11 to 15 years old	Owned	Not at all likely Extremely likely		Not at all likely
	Online	000000129	99.00	Not at all likely	Electricity		5 years or less	Owned	Not at all likely		
	Online	0000000130	99.00	Not at all likely Extremely likely	Electricity		5 years or less	Owned	Not at all likely		
	Online	0000000132	6.00	Not at all likely	Propane		6 to 10 years old	Owned	Likely		
	Online	000000135	16.00	Very likely	Oil		16 to 25 years old	Owned	Extremely likely		
	Online	000000136	20.00	Not very likely Not very likely	Propane Electricity		6 to 10 years old 11 to 15 years old	Owned	Likely Very likely		
	Online	000000139	8.00	Likely	Electricity		11 to 15 years old	Owned	Extremely likely		
	Online	0000000141	6.00	Not very likely	Electricity		16 to 25 years old	Owned	Very likely		
	Online	0000000142	99.00	Not very likely	Electricity		6 to 10 years old	Owned	Likely		
	Online	000000144	12.00	Not very likely	Electricity		11 to 15 years old	Owned	Extremely likely		
	Online	0000000145	98.00	Not at all likely Extremely likely	Propane		6 to 10 years old	Owned	Extremely likely		Extramely likely
	Online	0000000148	10.00	Not very likely	Electricity		6 to 10 years old	Rented		Very likely	
	Online Online	0000000149	2.00	Not very likely	Electricity		DK/NS (DO NOT READ)	Owned	Likely		
	Online	0000000151	24.00	Extremely likely	Electricity		16 to 25 years old	Owned	Extremely likely		
	Online	000000152	3.00	Not at all likely	Electricity		6 to 10 years old	Owned	Likely		
	Online	0000000153	8.00	DK/NS (DO NOT READ) Not very likely	Propane		DK/NS (DO NOT READ) 6 to 10 years old	Owned Owned	Extremely likely		
	Online	0000000155	10.00	HOL VELY INCLY	Oil		DK/NS (DO NOT READ)	DK/NS (DO NOT READ)	wary maary		
	Online	000000156	99.00	Extremely likely	Electricity		Over 25 years old	Owned	Extremely likely		
	Online	0000000158	35.00 10.00	very likely DK/NS (DO NOT READ)	Electricity		over 25 years old 11 to 15 years old	Owned Owned	Very likely Not very likely		
	Online	000000159	99.00	Likely	Electricity		5 years or less	Owned	Very likely		
	Online	000000160	3.00	Not at all likely	Electricity		6 to 10 years old	Owned	Likely		
	Online	0000000161	9.00	Extremely likely	Electricity		6 to 10 years old	Owned	Extremely likely		
	Online	000000163	23.00	Likely	Electricity		6 to 10 years old	Owned	Not very likely		Extremely likely
	Online	0000000164	25.00	Not at all likely Extremely likely	Propane		5 years or less	Owned	Not very likely		
	Online	0000000168	4.00	Not at all likely	Electricity		6 to 10 years old	Owned	Not very likely		
	Online Online	0000000169	8.00	Likely	Electricity		11 to 15 years old	Owned	Likely		
	Online	0000001/7	99.00 15.00	NOT VERY likely Extremely likely	Electricity		DK/NS (DO NOT READ) DK/NS (DO NOT READ)	Owned	Likely		
	Online	000000188			Electricity		16 to 25 years old	Owned	Very likely		
	Online	000000189	25.00	12hala	Electricity		16 to 25 years old	Owned	Likely		
	Online	0000000190	25.00	Extremely likely	Electricity		DK/NS (DO NOT READ)	Owned	Extremely likely		
	Online	000000194	15.00	Extremely likely	Electricity		6 to 10 years old	Owned	Extremely likely		
	Online	0000000196	99.00	Extremely likely Not at all likely	Oil Electricity		5 years or less 5 years or less	Owned Owned	Extremely likely Not at all likely		
	Online	0000000200	20.00	Very likely	Electricity		5 years or less	Owned	Very likely		
	Online	000000202	1.00	Not at all likely	Electricity		5 years or less	Owned	Extremely likely		
	Online	000000205	8.00 26.00	Likely Very likely	Oil		o years or less Over 25 years old	Owned Owned	Very likely		
	Online	000000206	5.00	Not very likely	Propane		6 to 10 years old	Owned	Not very likely		
	Online	000000207	20.00	Likely	Electricity		5 years or less	Rented		Likely	

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Method	RecordNo	HSa. Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency formace is in the range of 54,500 to 55,500 induding taxes depending on the type of equipment you currently have.	H6. Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting your existing heating system to natural gas is likely in the range of \$400 to \$1,000 including taxes depending on the type of equipment you currently have.	H7. Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a high efficiency natural eas	H7a. Installing a high efficiency natural gas furnace is likely to cost about \$4,500-\$5,500 if you already have forced air ductwork and \$12,500 if you don't, including taxes. A natural gas fireplace or wall heater would also cost about \$4,500-\$5,500.	H8. Installing a high efficiency natural gas furnace or boiler is likely to cost about \$4,500-\$5,500 if you already have forced air ductwork or a boiler, and \$12,500 if you were to install a new forced air	H5- WWH. Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace or boiler is in the range of \$4,500 to \$5,500 including taxes depending on the type of equipment you currently have.	H5a - WWH. Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace is in the range of 54,500 including taxes depending on the
		In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing	In addition to the cost of converting your heating equipment.	furnace and adding ducting is likely to be about \$12,500 including taxes depending	In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution	system requiring ductwork, including taxes. Alternatively, a natural gas	In addition to the cost of converting your space and water heating, an	type of equipment you currently have.
		the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save approximately creanville =	an average home would be required to make a financial	on the specific style and/or size of your premise. Another option would be to	toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the	fireplace or wall heater would cost about \$4,500-\$5,500.	average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly	In addition to the cost of converting your space and water heating, an average home would be required to make a
		\$250, Cedar Springs = \$300> per year by switching electric heating equipment to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your heating system to natural gas? Would you say?	which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save approximately \$1,000 per year by switching heating	install a natural gas fireplace or space heater to heat the main living area, at an estimated cost of \$4,500-\$5,500.	surcharge added, savings will likely be minimal from switching your wood-fired heating equipment to natural gas. However, you wouldn't need to split or store wood. Considering this, how likely	In addition to the cost of converting your heating equipment, an average home	payments based on how much gas you use. With the surcharge added, an average home will save approximately \$2,250 per year by switching space and water heating to natural gas. Savings are likely greater for	financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an
Online Online	000000062							
Online	000000064		Extremely likely				Anna Plate	
Online	0000000066						Likely	
Online	000000067 000000068							
Online	000000071							
Online	0000000072				Not very likely			
Online	0000000076							
Online	0000000080		Likely					
Online Online	0000000081 0000000082				Not very likely		Extremely likely	
Online	000000083						Likely	
Online	0000000094						Extremely likely	
Online	0000000095						Extremely likely	
Online	000000097							
Online	0000000098							
Online	0000000102							
Online	0000000104							
Online Online	0000000105 0000000107					Likely		
Online	0000000109				Not very likely			
Online	0000000110							
Online	0000000115 0000000116							
Online	0000000117							Marchitek
Online	0000000118							Very likely
Online	0000000120							
Online	0000000122							
Online Online	0000000123 0000000124					Likely		
Online	0000000125						Likely	
Online	0000000127						Linciy	
Online Online	0000000128 0000000129		Extremely likely					
Online	0000000130		Verylikely			Not at all likely		
Online	0000000131		very likely					
Online Online	0000000135 0000000136						Extremely likely	
Online	0000000138						Very likely	
Online	0000000133							
Online	0000000142							
Online	0000000144							
Online	0000000145							
Online Online	0000000148							
Online	0000000150							
Online	0000000151							
Online Online	0000000153 0000000154						Very likely	
Online	0000000155					Not very likely	Estromoly Block	
Online	0000000155						EALIETHERY HARRY	
Online Online	0000000158 0000000159		Likely				Very likely	
Online	0000000160							
Online	0000000161							
Online Online	0000000163 0000000164		Not very likely					
Online	0000000166		Extramely likely					
Online	0000000169		y =====y					
Online Online	0000000177 0000000183						Likely	
Online	0000000188							
Online	0000000189						Likely	
Online Online	0000000191 0000000194						Extremely likely	
Online	0000000196		Venilikely				Extremely likely	
Online	0000000200		very meety				Very likely	
Online Online	0000000202 0000000204						Very likely	
Online	0000000205		1 Stock-				Very likely	
Online	0000000206		LINCTY					

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Mather	RecordNo	H6 - WWH Converting your besting outers to actual	H7- WWH Converting your bestin	H7a . WWW Installing a bisk officiants	W2 . WWW Installing a high officiancy natural	HQs. You indicated that you are unlikely to come the	r H9a You indicated that	E1 You indicated that you are likely to	E2 I am going to read	E2 Oven Bange or Stove	E2 Clothes Driver
Metilou	Recordino	requires some initial investment by the property owner.	system to natural gas requires some	natural gas furnace is likely to cost about	furnace or boiler is likely to cost about \$4,500-\$5,500 if	heating system to natural gas. Can you explain why?	you are unlikely to convert	convert to natural gas. Assuming gas	a list of appliances that	E2 Oven, Range of Stove	E2 Clothes Diver
		The cost of converting your existing heating system to	initial investment by the property owner.	\$4,500-\$5,500 if you already have forced air	you already have forced air ductwork or a boiler, and	(PROBE) Are there any other reasons?	your heating system to	service is available Prior to 2026, when	could be powered by		
		natural gas is likely in the range of \$400 to \$1,000	The cost of converting a residential	ductwork and \$12,500 if it doesn't, including	\$12,500 if you were to install a new forced air system		natural gas. Can you	would you likely convert?	natural gas. For each		
		currently have.	natural gas furnace and adding ducting is	would also cost about \$4,500-\$5,500.	natural gas fireplace or wall heater would cost about		there any other reasons?	Within the first 12 months	vou would be extremely		
			likely to be about \$12,500 including taxes		\$4,500 - \$5,500.		(VERBATIM ANSWERS FOR	Within 1 to 2 years	interested, very interested		
		In addition to the cost of converting your space and water	depending on the specific style and/or	In addition to the cost of converting your	to addition to the cost of constants and a discussion		THOSE WHO ANSWERED	Within 2 to 3 years	interested, not very		
		heating, an average home would be required to make a financial contribution toward the cost of constructing the	size of your premise. Another option would be to install a natural gas fireplace	space and water neating, an average nome would be required to make a financial	water heating, an average home would be required to		OTHER )	After 3 years	interested or not at all		
		pipeline, which will be split into monthly payments based	or space heater to heat the main living	contribution toward the cost of constructing	make a financial contribution toward the cost of				for the appliance.		
		on how much gas you use. With the surcharge added, an	area, at an estimated cost of \$4,500-	the pipeline, which will be split into	constructing the pipeline, which will be split into				[RANDOMIZE]		
Online	000000062	Likely		Extremely likely				Within the first 12 months Within the first 12 months	Extremely interested Extremely interested	Not at all interested Interested	Not at all interested Extremely interested
Online	000000064							Within the first 12 months	Not at all interested	Not at all interested	Not at all interested
Online	000000065							Within the first 12 months	Interested	Very interested	Interested
Online	000000066							Within 1 to 2 years	Not at all interested	DK/NS (DO NOT READ)	DK/NS (DO NOT READ)
Online	000000067	Extremely likely						Within the first 12 months	Not at all interested	Not at all interested	Interested Very interested
Online	0000000071	Very likely						Within the first 12 months	Not very interested	Extremely interested	Not at all interested
Online	000000072				Not very likely						
Online	000000074	Potencia de Marte				Other: (SPECIFY)	I am 60 years old when I can	n't do wood any longer or existing furnace fa	ils we will update to other fo	rms of heat if natural gas can be used fo	r my heating needs that is what I will use as I
Online	000000078	Extremely likely		Not very likely		Not interested at this time/ maybe in the future		within the first 12 months	Interested	Interested	Interested
Online	000000080							Within the first 12 months	DK/NS (DO NOT READ)	DK/NS (DO NOT READ)	DK/NS (DO NOT READ)
Online	000000081					Other: (SPECIFY)	Don't know the cost of fuel.				
Online	000000082							Within the first 12 months	Not very interested	Interested	Not very interested
Online	000000083				Extremely likely			Within the first 12 months	Not at all interested	Interested	Verv interested
Online	000000094							Within the first 12 months	Not at all interested	Interested	Not at all interested
Online	000000095							Within the first 12 months	DK/NS (DO NOT READ)	Not very interested	Not very interested
Online	000000096	Very likely		Extremely likely				Within the first 12 months Within the first 12 months	UK/NS (DO NOT READ)	Very interested	Interested
Online	000000098	Extremely likely						Within the first 12 months	Not at all interested	Not very interested	Interested
Online	000000099	Extremely likely						Within the first 12 months	Interested	Interested	Not very interested
Online	000000102	Extremely likely						Within the first 12 months	Interested	Very interested	Not at all interested
Online	0000000103	Extremely likely Extremely likely						Within the first 12 months Within the first 12 months	Very interested	very interested Interested	Extremely interested
Online	0000000105	Extremely likely						Within the first 12 months	Not very interested	Extremely interested	Very interested
Online	0000000107							Within the first 12 months	Extremely interested	Not at all interested	Interested
Online	0000000109	Extremely likely				Not worth it		Within 1 to 2 years	Not at all interested	Interested	Interacted
Online	0000000110	Exclemely likely		Extremely likely				Within the first 12 months	Extremely interested	Extremely interested	Very interested
Online	0000000115	Extremely likely						Within the first 12 months	Not at all interested	Not at all interested	Not at all interested
Online	000000116	Extremely likely						Within the first 12 months	Interested	Interested	Interested
Online	0000000117			Very likely				Within the first 12 months	Extremely interested	Very interested	Very interested
Online	0000000118	Very likely						Within 2 to 3 years Within the first 12 months	Interested Verv interested	Interested Very interested	Interested
Online	000000120	Extremely likely						Within the first 12 months	Interested	Extremely interested	Not at all interested
Online	000000121	Extremely likely						Within 1 to 2 years	Not at all interested	Extremely interested	DK/NS (DO NOT READ)
Online	000000122			Extremely likely				Within the first 12 months	Interested	Interested	Very interested
Online	0000000123	verylikely						Within 1 to 2 years	Interested	Not at all interested	Not at all interested
Online	000000125							Within the first 12 months	Extremely interested	Interested	Not very interested
Online	000000126							Within the first 12 months	Interested	Very interested	Very interested
Online	0000000127	Extremely likely				Other: (SPECIFY)	if I change it will be to elect	ric forced air Within the first 12 menths	Interacted	Extremely interested	Extremely interested
Online	0000000129	Exercisely incly						Within the first 12 months	Extremely interested	Not at all interested	Not at all interested
Online	000000130										
Online	000000131							Within the first 12 months	Not at all interested	Not at all interested	Not very interested
Online	0000000132	Very likely						After 3 years Within 1 to 2 years	Not at all interested	Interested Very interested	Interested
Online	000000136	Likely						Within 2 to 3 years	Not at all interested	Interested	Interested
Online	000000138							Within 1 to 2 years	Not at all interested	Not at all interested	Not at all interested
Online	0000000139	Extremely likely						Within the first 12 months	Interested Network interested	Interested Network interested	Extremely interested
Online	0000000141	Not at all likely				Other: (SPECIFY)	Because I don't feel I should	have to pay the cost of your infrastructure.	If I move, I've paid for some	one else's pipeline. If Enbridge was pavi	ng for the infrastructure I would without a do
Online	000000143			Very likely				Within the first 12 months	Not at all interested	Interested	Not very interested
Online	0000000144	Extremely likely						Within the first 12 months	Not very interested	Not very interested	Interested
Online	0000000145	Extremely likely						Within the first 12 months	Extremely interested	Extremely interested	Extremely interested
Online	0000000148				Likely			Within the first 12 months	Not very interested	Not at all interested	Not very interested
Online	0000000149	Likely						Within the first 12 months	Interested	Interested	Interested
Online	000000150		Potencia de Plante	Likely				After 3 years	Interested	Not very interested	Interested
Online	000000151	Very likely	extremely likely					within the first 12 months Within the first 12 months	Extremely interested	very interested Not very interested	not very interested
Online	0000000152	Extremely likely						Within the first 12 months	Extremely interested	Not at all interested	Not at all interested
Online	000000154							Within 1 to 2 years	Not very interested	Not very interested	Not very interested
Online	0000000155							Within the first 17 months	Not at all interacted	Extremely interested	Interacted
Online	0000000157			Not very likely		Not interested at this time/ maybe in the future					
Online	000000158							Within 1 to 2 years	Very interested	Very interested	DK/NS (DO NOT READ)
Online	0000000159				Materia Plant.			Within the first 12 months	Interested	Not very interested	Not very interested
Online	000000160		Likely		Not very likely			Within 1 to 2 years	Very interested	Not very interested	Not very interested
Online	0000000162			Extremely likely				Within the first 12 months	Interested	Interested	Interested
Online	000000163							Within the first 12 months	Interested	Interested	Interested
Online	0000000164	Futramalu likalu				Not worth it		Within the first 17 m ++ -	Eutromoly intervented	Extremely interest - 4	Extremely interacted
Online	0000000168	cationery likely						Within the first 12 months	Interested	Not at all interested	Not at all interested
Online	000000169				Likely			Within 2 to 3 years	Not very interested	Not very interested	Very interested
Online	000000177	Likely						After 3 years	Not at all interested	Not at all interested	Not at all interested
Online	0000000183				Likely			Within 1 to 2 years Within 2 to 3 years	Not very interested	Interested	Interested
Online	0000000188				Likely			Within the first 12 months	Interested	Interested	Interested
Online	0000000190							Within 1 to 2 years	Not at all interested	DK/NS (DO NOT READ)	DK/NS (DO NOT READ)
Online	0000000191			Fotosse to Black				Within the first 12 months	Not very interested	Not very interested	Interested
Online	0000000194			Extremely likely				Within the first 12 months Within the first 12 months	Extremely interested	Interested	Interested Very interested
Online	0000000190							Within the first 12 months	Not at all interested	Not at all interested	Not at all interested
Online	000000200							Within the first 12 months	Not very interested	DK/NS (DO NOT READ)	Very interested
Online	0000000202	Extremely likely						Within the first 12 months	Extremely interested	Not very interested	Not very interested
Online	000000204							Within 1 to 2 years	Interested	Interested	Interested
Online	000000206							Within 1 to 2 years	Interested	Not very interested	Not very interested
Online	000000207			Extremely likely				Within the first 12 months	Interested	Interested	Interested

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Method	RecordNo	E2 BBQ	E2 (Other, Specify)	E2 (Other,	D1. Which of the following best describes	D2. In order to have some	D3. In what year was y	D3a. Which statement best describes	D3B. For approximately how	D4. How many adult	18 D5. And how many	D6. In what	year D6a. Can you please tell	D7. And lastly, which of the following best	E1. How many additional buildings (are at Other (Specify)
				Specity)	the style of your house? Is it a?	size of your home in square	estimate is fine. [ENTER	the occupancy of this dwelling?	residence during 2017 2021?	have living in your	younger, if any, do you	u [RECORD YE	rn? me into which of the AR] following age groups you	describes your total household income before taxes?	this location?)
					oA bungalow or one-story ranch	feet (not including any	YEAR] Please enter 999	9 if oOccupied all-year round		household, including	have living in your		fall? Are you?		oOne
					oA raised ranch oA split level	unfinished basement) can you tell me how many square feet	you Don't know	oOccupied mostly in the summer months		yourself?	household?		o18 to 24	oUnder \$20,000 o\$20.000 to less than \$40.000	oTwo oThree
					oA two story	your home is?		oOccupied mostly in the winter months					o25 to 34	o\$40,000 to less than \$60,000	oOther (Specify)
					oA three-story house oSome other style			oOccupied occasionally year round oDon't know					o35 to 44	o\$60,000 to less than \$80,000 o\$80,000 to less than \$100,000	oPart of a building oDon't know
													o55 to 64	o\$100,000 to less than \$120,000	oRefuse
													o65 or over oRefuse	o\$120,000 to less than \$140,000 o\$140,000 or more	
Online	000000062	Not very interested	None/No other appliance		A two story	1900.00	198	9.00 Occupied all-year round			2.00 (	0.00 9	999.00 65 or over	\$80,000 to less than \$100,000	
Online	000000063	Not very interested	None/No other appliance		A two story	2000.00	195	3.00 Occupied all-year round			3.00	1.00 1	980.00	\$100,000 to less than \$120,000	
Online	000000065	Extremely interested	Other Appliance	Pool heater	A bungalow or one story ranch A raised ranch	2200.00	196	5.00 Occupied all-year round			2.00 9	2.00 1	953.00	\$120,000 to less than \$40,000 \$120,000 to less than \$140,000	
Online	000000066	Not at all interested	None/No other appliance		A bungalow or one story ranch	1100.00	999	0.00 Occupied all-year round			2.00	0.00 9	999.00 55 to 64	REFUSED	
Online	000000067	Extremely interested	Other Appliance	Pool heater	A bungalow or one story ranch	1100.00	197	2.00 Occupied all-year round			2.00	1.00 9	999.00 35 to 44	\$100,000 to less than \$120,000	
Online	0000000071	Extremely interested	None/No other appliance		A bungalow or one story ranch A raised ranch	1440.00	200	3.00 Occupied all-year round			2.00	0.00 1	955.00	\$140,000 or more	
Online	000000072				A raised ranch	2000.00	200	1.00 Occupied all-year round			2.00	0.00 9	999.00 65 or over	REFUSED	
Online	000000074	had it in our last home in p	embroke and was very happy w Other Appliance	ith it. If it is availab bot water on der	le it will be used for appliances and if hot wate	er tank fails it will be replaced with	gas.	0.0 Occupied all-year round			2.00	5.00 1	985.00	\$140,000 or more	Two
Online	000000078	extremely increaced	other appliance	not water on der	A split level	1800.00	198	1.00 Occupied all-year round			2.00	0.00 1	950.00	\$20,000 to less than \$40,000	
Online	000000080	DK/NS (DO NOT READ)	None/No other appliance		A bungalow or one story ranch	99999.00	999	0.00 Occupied all-year round			3.00	1.00 1	963.00	REFUSED	
Online	000000081	Interested	None/No other appliance		A split level	3000.00	999	3.00 Occupied all-year round			1.00	0.00 1 1.00 1	941.00	REFUSED \$80,000 to lass than \$100,000	
Online	000000083	Not at all interested	None/No other appliance		A split level	99999.00	999	3.00 Occupied all-year round		9	9.00 9!	9.00 1	948.00	REFUSED	
Online	000000088	Very interested	Other Appliance	Backup Generato	or A two story	1200.00	189	0.00 Occupied all-year round			4.00 9	9.00 1	966.00	\$140,000 or more	
Online	000000094	Not at all interested	None/No other appliance		A two story	1100.00	193	0.00 Occupied all-year round			1.00 9	9.00 9	999.00 REFUSED	REFUSED	
Online	0000000096	Very interested	Other Appliance	separate garage	ht bungalow or one story ranch	1200.00	193	0.00 Occupied all-year round			2.00	0.00 1	999.00 REFUSED	REFUSED	
Online	000000097	Very interested	None/No other appliance		A two story	1350.00	198	3.00 Occupied all-year round			2.00	0.00 1	970.00	\$120,000 to less than \$140,000	
Online	000000098	Extremely interested	None/No other appliance		A two story	1800.00	195	0.00 Occupied all-year round			2.00	0.00 1	955.00	\$40,000 to less than \$60,000	Dealth learns
Online	0000000099	Not very interested	None/No other appliance		A two story	1234.00	194	1.00 Occupied all-year round			2.00	2.00 1	983.00	\$140.000 or more	Don't know
Online	0000000103	Not at all interested	None/No other appliance		A two story	1100.00	188	5.00 Occupied all-year round			2.00	0.00 1	999.00	REFUSED	
Online	000000104	DK/NS (DO NOT READ)	None/No other appliance		A raised ranch	2000.00	198	5.00 Occupied all-year round			2.00	2.00 1	978.00	\$80,000 to less than \$100,000	
Online	0000000105	Extremely interested	None/No other appliance		A two story A hungalow or one story ranch	1800.00	194	0.00 Occupied all-year round			2.00	0.00 1	955.00	\$40,000 to less than \$60,000 REFLISED	
Online	0000000109	Extremely interested	None, No other appliance		A two story	4000.00	201	3.00 Occupied all-year round			2.00	2.00 1	990.00	\$140,000 or more	
Online	000000110	Interested	None/No other appliance		A two story	99999.00	999	0.00 Occupied all-year round			2.00	0.00 1	958.00	REFUSED	
Online	0000000111	Extremely interested	None/No other appliance		A two story	2100.00	189	0.00 Occupied all-year round			1.00	0.00 1	983.00	\$80,000 to less than \$100,000	
Online	0000000115	Interested	None/No other appliance		A two story A two story	1400.00	195	0.00 Occupied all-year round			2.00	0.00 1	955.00	\$140,000 or more	
Online	0000000117	Very interested	None/No other appliance		A two story	1500.00	188	0.00 Occupied all-year round			1.00	0.00 1	964.00	\$80,000 to less than \$100,000	
Online	0000000118	Interested	None/No other appliance		A raised ranch	2200.00	198	7.00 Occupied all-year round			2.00	0.00 1	950.00	REFUSED	
Online	0000000119	Very interested Extremely interested	None/No other appliance Other Appliance	Hottub	A bungalow or one story ranch A two story	3600.00	198	4.00 Occupied all-year round 4.00 Occupied all-year round			2.00	1.00 1	970.00	\$140,000 or more \$80,000 to less than \$100,000	
Online	0000000121	Not very interested	None/No other appliance		A split level	1000.00	197	5.00 Occupied all-year round			4.00	0.00 1	969.00	REFUSED	
Online	000000122	Extremely interested	None/No other appliance		A raised ranch	1200.00	198	5.00 Occupied all-year round			3.00	1.00 1	980.00	REFUSED	
Online	0000000123	Interested DK/NS (DO NOT READ)	None/No other appliance		A two story	1200.00	195	3.00 Occupied all-year round			2.00	2.00 1	986.00 999.00 75 to 34	\$20,000 to less than \$40,000 \$80,000 to less than \$100,000	
Online	0000000125	Interested	Other Appliance	Space heater	A split level	2500.00	195	5.00 Occupied all-year round			2.00	0.00 1	946.00	\$60,000 to less than \$80,000	
Online	000000126	Extremely interested	None/No other appliance		A raised ranch	1400.00	198	1.00 Occupied all-year round			2.00	0.00 1	956.00	\$60,000 to less than \$80,000	
Online	0000000127	Extremely interested	None/No other appliance		A two story A hungalow or one story ranch	99999.00	190	1.00 Occupied all-year round			2.00	0.00 9	999.00 REFUSED	REFUSED \$40,000 to lass than \$50,000	
Online	0000000128	Interested	None/No other appliance		A two story	3300.00	199	1.00 Occupied all-year round			2.00	0.00 1	960.00	REFUSED	
Online	000000130				A bungalow or one story ranch	1000.00	196	1.00 Occupied all-year round			2.00 9	9.00 9	999.00 65 or over	REFUSED	
Online	000000131	Not at all interested	None/No other appliance		A two story	1000.00	195	0.00 Occupied all-year round			2.00	0.00 1	972.00	\$20,000 to less than \$40,000	
Online	000000132	Verv interested	None/No other appliance		A bungalow of one story ranch	40000.00	201	5.00 Occupied all-year round 5.00 Occupied all-year round		4	0.00	0.00 1	998.00 999.00 65 or over	\$140,000 or more	
Online	000000136	Interested	None/No other appliance		A bungalow or one story ranch	1200.00	201	5.00 Occupied all-year round			1.00	0.00 1	958.00	\$60,000 to less than \$80,000	
Online	000000138	Interested	None/No other appliance		A split level	2500.00	196	3.00 Occupied all-year round			2.00	0.00 1	952.00	\$40,000 to less than \$60,000	
Online	0000000139	Not very interested	None/No other appliance		A two story A two story	2000.00	193	3.00 Occupied all-year round 3.00 Occupied all-year round			2.00 9	9.00 1	962.00	\$20,000 to less than \$120,000 \$20,000 to less than \$40,000	
Online	0000000142	ubt pay the cost to switch	to natural gas if it became availa	ble.	A bungalow or one story ranch	2200.00	197	3.00 Occupied all-year round			2.00	0.00 1	966.00	\$80,000 to less than \$100,000	
Online	000000143	Interested	None/No other appliance		A two story	1000.00	191	9.00 Occupied all-year round			1.00	0.00 1	995.00	\$60,000 to less than \$80,000	
Online	0000000144	Very interested Extremely interested	Other Appliance None/No other appliance	Pool heater	A split level A raised ranch	37000.00	200	3.00 Occupied all-year round 3.00 Occupied all-year round			4.00	3.00 1 2.00 1	984.00	\$140,000 or more REFLISED	
Online	0000000147	Not very interested	None/No other appliance					,,							Zero
Online	000000148	Not very interested	Other Appliance	free-standing Ver	rnA two story	1800.00	191	7.00 Occupied all-year round			1.00 9	9.00 9	999.00 REFUSED	REFUSED	
Online	0000000149	DK/NS (DO NOT READ)	None/No other appliance None/No other appliance		A two story A two story	1600.00	188	5.00 Occupied all-year round 3.00 Occupied all-year round			3.00 9	0.00 9 9.00 9	999.00 REFUSED 999.00 55 to 64	REFUSED \$40,000 to less than \$60,000	
Online	0000000151	Very interested	Other Appliance	Electric boiler for	vA raised ranch	1900.00	197	3.00 Occupied all-year round			4.00 9	9.00 1	971.00	\$120,000 to less than \$140,000	
Online	000000152	Interested	None/No other appliance		A two story	1600.00	191	0.00 Occupied all-year round			2.00	0.00 1	956.00	\$60,000 to less than \$80,000	
Online	0000000153	Extremely interested Not very interested	None/No other appliance None/No other appliance		A split level A two story	2000.00	198	2.00 Occupied all-year round 3.00 Occupied mostly in the summer months	91	00	2.00	3.00 1 0.00 1	986.00 954.00	\$100,000 to less than \$120,000 \$60,000 to less than \$80,000	
Online	0000000155		,e ec uppnunce			100.00	155		5.						Refuse
Online	000000156	DK/NS (DO NOT READ)	Other Appliance	furance	A bungalow or one story ranch	99999.00	196	0.00 Occupied all-year round			2.00	0.00 1	967.00	REFUSED	
Online	0000000157	Very interested	None/No other appliance		A bungalow or one story ranch	1500.00	198	7.00 Occupied all-year round 7.00 Occupied occasionally year round	17.0	00	1.00 0	0.00 1	944.00	\$20,000 to less than \$40,000 \$120,000 to less than \$140,000	
Online	0000000159	Interested	None/No other appliance		A two story	896.00	195	0.00 Occupied all-year round			2.00	0.00 1	964.00	REFUSED	
Online	000000160				A two story	1000.00	195	2.00 Occupied all-year round			2.00 9	9.00 1	958.00	\$60,000 to less than \$80,000	
Online	0000000161	Interested	None/No other appliance		A raised ranch	1100.00	198	1.00 Occupied all-year round			2.00	2.00 1	971.00	\$140,000 or more	
Online	0000000163	Extremely interested	Other Appliance	Furnace/space h	erA bungalow of one story ranch	1100.00	197	0.00 Occupied all-year round			1.00	0.00 1	957.00	\$40,000 to less than \$60,000	
Online	000000164														One
Online	0000000166	Extremely interested	None/No other appliance		A bungalow or one story ranch	600.00	196	3.00 Occupied all-year round			2.00	0.00 1	966.00	\$140,000 or more \$40,000 to less than \$50,000	
Online	000000168	Very interested	Other Appliance	refrigerator	A two story	1400.00	201	0.00 Occupied all-year round			3.00	0.00 1	999.00 55 to 64	\$80,000 to less than \$100,000	
Online	0000000177	Not at all interested	None/No other appliance												One
Online	000000183	Not at all interested	None/No other appliance		A two story	99999.00	999	9.00 Occupied all-year round			1.00	0.00 1	987.00	\$40,000 to less than \$60,000	
Online	0000000188	Not very interested Not very interested	None/No other appliance None/No other appliance		A two story Some other style	99999.00	186	5.00 Occupied mostly in the summer months 3.00 Occupied mostly in the summer months	6.0	00	2.00	0.00 1	956.00	\$140,000 or more \$60,000 to less than \$80,000	
Online	0000000190	DK/NS (DO NOT READ)	None/No other appliance		A split level	1200.00	196	3.00 Occupied all-year round	0.0		2.00 9	9.00 1	952.00	REFUSED	
Online	000000191	DK/NS (DO NOT READ)	None/No other appliance		A raised ranch	1500.00	197	0.00 Occupied all-year round			2.00	1.00 1	986.00	\$80,000 to less than \$100,000	
Online	0000000194	very interested	None/No other appliance None/No other appliance		A bungalow or one story ranch Or a three story house	1700.00	198	8.00 Occupied all-year round 0.00 Occupied all-year round			3.00	U.UO 1 2.00 1	956.00 988.00	REFUSED \$80,000 to less than \$100,000	
Online	0000000190	Not at all interested	None/No other appliance		A bungalow or one story ranch	99999.00	193	5.00 Occupied all-year round			2.00	0.00 1	953.00	REFUSED	
Online	000000200	Very interested	None/No other appliance		Some other style	99999.00	999	9.00 Occupied all-year round			2.00	0.00 1	945.00	REFUSED	
Online	0000000202	Extremely interested	None/No other appliance		A two story A two story	3600.00	199	8.00 Occupied all-year round			1.00 9	9.UO 9	999.00 65 or over 976.00	REFUSED \$120,000 to less than \$140,000	
Online	0000000205	Interested	None/No other appliance		A two story	15000.00	192	5.00 Occupied all-year round		9	9.00 9	9.00 9	999.00 55 to 64	REFUSED	
Online	0000000206	Very interested	None/No other appliance		A raised ranch	1600.00	199	0.00 Occupied all-year round			2.00	1.00 9	999.00 55 to 64	REFUSED	
Online	000000207	interested	wone/No other appliance		A two story	99999.00	999	you occupied all-year round			2.00	2.00 1	972.00	\$40,000 to less than \$60,000	

Method	RecordNo	E2. What is the approximate square	E3. What is the age of the building at this	DB3. How many floors does the building have?
		this building of including basement	location (or the may second) third ballanig).	does the building nave.
		and storage, but not including	o1 YEAR OR LESS,	
		parking or loading areas?	o2 TO 5 YEARS,	
			o6 TO 10 YEARS,	
		Please consider only the area that is	o11 TO 20 YEARS,	
		affected by a heating system.	021 TO 30 YEARS,	
		Enter six as (aaaaaa) ii Don t know	oMORE THAN 40 YEARS OLD.	
			oDON'T KNOW	
			oREFUSE	
Online	000000062			
Online	000000064			
Online	000000065			
Online	000000066			
Online	000000067			
Online	000000068			
Online	000000071			
Online	000000072			
Online	000000074	1400.00	21 to 30 years	1.00
Online	000000076			
Online	000000078			
Online	000000080			
Online	000000081			
Online	000000082			
Online	000000088			
Online	000000094			
Online	000000095			
Online	000000096			
Online	000000097			
Online	000000098			
Online	000000099			
Online	0000000102			
Online	0000000103			
Online	000000104			
Online	0000000105			
Online	0000000109			
Online	0000000110			
Online	0000000111			
Online	0000000115			
Online	000000116			
Online	000000117			
Online	000000118			
Online	0000000119			
Online	0000000120			
Online	0000000121			
Online	0000000122			
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Online	000000125			
Online	000000126			
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Online	0000000143			
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Online	0000000145			
Online	000000147			
Online	000000148			
Online	0000000150			
Online	0000000151			
Online	0000000152			
Online	000000153			
Online	000000154			
Online	000000155			
Online	0000000156			
Online	000000157			
Online	000000158			
Online	0000000160			
Online	0000000161			
Online	0000000162			
Online	000000163			
Online	000000164	2000.00	0 21 to 30 years	1.00
Online	000000166			
Online	000000168			
Online	0000000169		A description of the second state	4.00
Online	0000000177	999999.00	I more than 40 years old	1.00
Online	000000183			
Online	000000188			
Online	000000189			
Online	000000190			
Online	0000000194			
Online	0000000196			
Online	0000000197			
Online	000000200			
Online	0000000202			
Online	000000204			
Online	000000205			
Online	000000206			
Online	000000207			

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Method	RecordNo	LtCallDt	SCR3. Do you own rent this property?	or SCRS. Which of the following best describes the building (or building) at this location?	SCR6. On average, how much is your annual heating cost for this premise including taxes? Please enter 99999 if you would like to leave blank	HJA. What is the primary energy source of heat for this premise? Is IL.?	HLAD: DNer (SPEOPY)	HB. What type of system provides the primary source of head for this premise? Is R? (RESPONSES FOR OIL)	H1B. What type of system provides the primary source of heat for this preventie? Is k? (RESPONSES FOR PROPANE)	H1B. What type of system provides the primary source of heat for this premise? Is it? (RESPONSES FOR ELECTRICITY)	H1B. What type of system provides the primary source of heat for this premise? Is it? (RESPONSES FOR WOOD)
Online	000000208	20220609	Own	Residential	99999.00	Propane			Propane Forced Air		
Online	000000209	20220610	Own	Residential	99999.00	Propane			Propane Forced Air		
Online	000000210	20220610	Own	Residential	99999.00	Propane			Propane Forced Air		
Online	000000211	20220612	Own	Residential	1500.00	Wood					Outdoor wood furnace
Online	000000212	20220612	Own	Commercial	7500.00	Oil		Oil Forced Air			
Online	000000216	20220614	Own	Residential	3050.00	Propane			Propane Forced Air		
Online	000000219	20220615	Own	Residential	1500.00	Electricity				Electric Baseboard	

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Method	RecordNo	H2. How old is your heating system?	H3. How likely are you to replace your heating system in the next 2 years? Are you? Extremely likely: Very likely Likely; Not very likely; Not at all likely	W1. What is the MAIN fuel source for heating your water?	WL. What is the MAIN fuel source for heating your water? (Other Specify)	W2: W2: How old is your water heater? of years or less of to 10 years old oll to 15 years old oll to 15 years old oll to 25 years old oOver 25 years old oDon't know	W3. Is your water heater owned or rented? oOwned oRented oDon't Know	W5. The purchase and installation of a typical natural gas water heater costs about 51,700 including laws depending on the complexity of the installation. However, with natural age, you could are up to 5330 compared to propane water heating costs, or 5310 compared to electric water heating costs. Considering up to 5320 value to convert your heating system to natural gas? Would you say? Extremely likely Very likely Likely Not very likely	WSs. Natural Gas water heaters can also be remted. Typical monthly event later same from \$25 per month to see the same likelying taxes. Depending on the specific Style of your premises, the property with natural gas, you could save up to \$350 compared to propane water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely are you to convert your water heating costs. Considering this, how likely have you are?	HS. Converting your healing system to natural gas requires some initial investment by the property owner. The cost of converting a realisatual healing system to a natural gas high efficiency furnace or boiler is in the range of 54,500 to 55,500 including tasks depending on the type of equipament you currently have. In addition to the cost of converting your heating equipation to average home would be required to make a flank and currently have. In addition to the cost of converting your heating equipation to average home would be required to make a flank and during a definition of the source of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surface added, an average added, no average average added, no average added,
Online	000000208	99.00	Not very likely	Electricity		5 years or less	Owned	Not at all likely		
Online	000000209	99.00	Very likely	Electricity		DK/NS (DO NOT READ)	Owned	Likely		
Online	000000210	98.00	Not at all likely	Electricity		5 years or less	Owned	Not very likely		
Online	000000211	22.00	Extremely likely	Electricity		6 to 10 years old	Owned	Extremely likely		
Online	000000212	10.00	Very likely	Electricity		6 to 10 years old	Owned	Very likely		
Online	000000216	8.00	Not very likely	Propane		6 to 10 years old	Owned	Extremely likely		
Online	000000219	1.00	DK/NS (DO NOT READ)	Electricity		5 years or less	Owned	Very likely		

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Method	RecordNo	H5a.Converting your heating system to natural gas requires some initial investment	H6. Converting your heating system to natural gas requires	H7. Converting your heating system to	H7a. Installing a high efficiency natural gas furnace is likely to cost	H8. Installing a high efficiency natural gas	H5 - WWH. Converting your heating system to natural gas requires some	H5a - WWH. Converting your heating system to natural
		by the property owner. The cost of converting a residential heating system to a	some initial investment by the property owner. The cost of	natural gas requires some initial	about \$4,500-\$5,500 if you already have forced air ductwork and	furnace or boiler is likely to cost about	initial investment by the property owner. The cost of converting a	gas requires some initial investment by the property
		natural gas high efficiency furnace is in the range of \$4,500 to \$5,500 including taxes	converting your existing heating system to natural gas is likely	investment by the property owner. The	\$12,500 if you don't, including taxes. A natural gas fireplace or wall	\$4,500-\$5,500 if you already have forced	residential heating system to a natural gas high efficiency furnace or	owner. The cost of converting a residential heating
		depending on the type of equipment you currently have.	in the range of \$400 to \$1,000 including taxes depending on	cost of converting a residential heating	heater would also cost about \$4,500-\$5,500.	air ductwork or a boiler, and \$12,500 if	boiler is in the range of \$4,500 to \$5,500 including taxes depending on	system to a natural gas high efficiency furnace is in the
			the type of equipment you currently have.	system to a high efficiency natural gas		you were to install a new forced air	the type of equipment you currently have.	range of \$4,500-\$5,500 including taxes depending on the
		In addition to the cost of converting your heating equipment, an average home		furnace and adding ducting is likely to be	In addition to the cost of converting your heating equipment, an	system requiring ductwork, including		type of equipment you currently have.
		would be required to make a financial contribution toward the cost of constructing	In addition to the cost of converting your heating equipment.	about \$12,500 including taxes depending	average home would be required to make a financial contribution	taxes. Alternatively, a natural gas	In addition to the cost of converting your space and water heating, an	
		the pipeline, which will be split into monthly payments based on how much gas you	an average home would be required to make a financial	on the specific style and/or size of your	toward the cost of constructing the pipeline, which will be split into	fireplace or wall heater would cost about	average home would be required to make a financial contribution toward	In addition to the cost of converting your space and water
		use. With the surcharge added, an average home will save approximately < Eganville =	contribution toward the cost of constructing the pipeline.	premise. Another option would be to	monthly payments based on how much gas you use. With the	\$4,500-\$5,500.	the cost of constructing the pipeline, which will be split into monthly	heating, an average home would be required to make a
		\$750 Carlar Springs - \$200> per year by switching electric heating equipment to	which will be split into monthly payments based on how much	install a natural gas firenlace or space	surcharge added, savings will likely be minimal from switching your		navments based on how much easy you use. With the surcharge added, an	financial contribution toward the cost of constructing the
		set of the	which while split into monary payments based on now inder	histori o natoro gos nicplace or space	sarcharge dedeel, savings win incry be minimar non-switching your	the second se	payments based on now matering as you aset what the sateriange added, an	all all a solution of the solu
		natural gas. Savings are likely greater for businesses. Considering this, now likely are	gas you use. with the surcharge added, an average nome will	neater to neat the main living area, at an	wood-fired neating equipment to natural gas. However, you	in addition to the cost of converting your	average nome will save approximately \$2,250 per year by switching space	pipeline, which will be split into monthly payments based
		you to convert your heating system to natural gas? Would you say?	save approximately \$1,000 per year by switching heating	estimated cost of \$4,500-\$5,500.	wouldn't need to split or store wood. Considering this, how likely	heating equipment, an average home	and water heating to natural gas. Savings are likely greater for	on how much gas you use. With the surcharge added, an
Online	000000208		Very likely					
Online	000000209							
Online	000000210		Extremely likely					
Online	000000211							
Online	0000000212						Potencia de Black	
Unline	000000212						Extremely likely	
Online	000000216							
Online	000000219							

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Method I	RecordNo	H6 - WWH. Converting your heating system to natural gas	H7 - WWH. Converting your heating	H7a - WWH. Installing a high efficiency	H8 - WWH. Installing a high efficiency natural gas	H9a. You indicated that you are unlikely to convert your	H9a. You indicated that	E1. You indicated that you are likely to	E2. I am going to read you	E2 Oven, Range or Stove	E2 Clothes Dryer
		requires some initial investment by the property owner.	system to natural gas requires some	natural gas furnace is likely to cost about	furnace or boiler is likely to cost about \$4,500-\$5,500 if	heating system to natural gas. Can you explain why?	you are unlikely to conver	t convert to natural gas. Assuming gas	a list of appliances that		
		The cost of converting your existing heating system to	initial investment by the property owner.	\$4,500-\$5,500 if you already have forced air	you already have forced air ductwork or a boiler, and	(PROBE) Are there any other reasons?	your heating system to	service is available Prior to 2026, when	could be powered by		
		natural gas is likely in the range of \$400 to \$1,000	The cost of converting a residential	ductwork and \$12,500 if it doesn't, including	\$12,500 if you were to install a new forced air system		natural gas. Can you	would you likely convert?	natural gas. For each		
		including taxes depending on the type of equipment you	heating system to a high efficiency	taxes. A natural gas fireplace or wall heater	requiring ductwork, including taxes. Alternatively, a		explain why? (PROBE) Are	•	appliance, please tell me if		
		currently have.	natural gas furnace and adding ducting is	would also cost about \$4,500-\$5,500.	natural gas fireplace or wall heater would cost about		there any other reasons?	Within the first 12 months	you would be extremely		
			likely to be about \$12,500 including taxes		\$4,500 - \$5,500.		(VERBATIM ANSWERS FOR	Within 1 to 2 years	interested, very interested		
		In addition to the cost of converting your space and water	depending on the specific style and/or	In addition to the cost of converting your			THOSE WHO ANSWERED	Within 2 to 3 years	interested, not very		
		heating, an average home would be required to make a	size of your premise. Another option	space and water heating, an average home	In addition to the cost of converting your space and		"OTHER")	After 3 years	interested or not at all		
		financial contribution toward the cost of constructing the	would be to install a natural gas fireplace	would be required to make a financial	water heating, an average home would be required to				interested in natural gas		
		pipeline, which will be split into monthly payments based	or space heater to heat the main living	contribution toward the cost of constructing	make a financial contribution toward the cost of				for the appliance.		
		on how much gas you use. With the surcharge added, an	area, at an estimated cost of \$4,500-	the pipeline, which will be split into	constructing the pipeline, which will be split into				[RANDOMIZE]		
Online	000000208							Within the first 12 months	Very interested	Not very interested	Not at all interested
Online	000000209	Likely						Within the first 12 months	Not very interested	Not at all interested	Not very interested
Online	0000000210							Within the first 12 months	Interested	Not very interested	Not very interested
Online	000000211			Extremely likely				Within the first 12 months	Very interested	Very interested	Extremely interested
Online	000000212							Within the first 12 months	Very interested	Very interested	Very interested
Online	000000216	Extremely likely						Within the first 12 months	Extremely interested	Very interested	Very interested
Online	000000219		Very likely					Within 1 to 2 years	DK/NS (DO NOT READ)	DK/NS (DO NOT READ)	DK/NS (DO NOT READ)
								and the second sec	, . ,	,	

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Method	RecordNo	E2 88Q	E2 (Other, Specify)	E2 (Other, Specify)	D1. Which of the following best describes the style of your house? Is it a? A bungalow or one-story stanch A stated ranch A stated ranch A state twel A two story A three-story house a Some other style	D2. In order to have some folea as to the approximate size of your home in square feet (not including any unfinished basement) can you tell me how many square feet your home is?	D3. In what year was you house built? Your best estimate is fine. [ENTER YEAR] Please enter 9999 if you Don't know	D3a. Which statement best describes the occupancy of this dwelling? obccupied a layear round obccupied mostly in the summer months obccupied mostly in the winter months obccupied costly in the winter months months	D3B. For approximately how many months did you use this residence during 2017 2021?	D4. How many adults 18 years or over do you have living in your household, including yourself?	DS. And how many children 17 years or younger, if any, do you have living in your household?	D6. In what year were you born? [RECORD YEAR]	D6a. Can you please tell me into which of the following age groups you fall? Are you? o18 to 24 o25 to 34 o35 to 44 o45 to 54 o45 to 54 o55 to 64 o55 or over oRefuse	07. And lastly, which of the following best describes your total household income before taxes? othed 520,000 o520,000 to less than 540,000 o540,000 to less than 550,000 o560,000 to less than 550,000 o550,000 to less than 5120,000 o550,000 to less than 5120,000 o5120,000 to less than 5124,000 o5120,000 to less than 5124,000	E1. How many additional buildings (are at this was many additional buildings (are at this was and the second secon	Other (Specify)
Online	000000208	Not very interested	None/No other appliance		A bungalow or one story ranch	99999.0	1989.0	0 Occupied all-year round		2.00	0.0	0 1990.0	10	\$80,000 to less than \$100,000		
Online	000000209	DK/NS (DO NOT READ)	None/No other appliance		A two story	99999.0	1930.0	0 Occupied all-year round		2.00	99.0	00 1948.0	10	REFUSED		
Online	000000210	Interested	None/No other appliance		A two story	1000.0	) 1917.0	0 Occupied all-year round		1.00	0.0	0 9999.0	00 55 to 64	REFUSED		
Online	000000211	Interested	None/No other appliance		A bungalow or one story ranch	2600.0	1999.0	0 Occupied all-year round		3.00	1.	1970.0	10	REFUSED		
Online	000000212	Very interested	None/No other appliance												Zero	
Online	000000216	Extremely interested	None/No other appliance		A split level	2000.0	1978.0	0 Occupied all-year round		2.00	0.0	0 1960.0	10	REFUSED		
Online	000000219	Very interested	None/No other appliance		A raised ranch	1750.0	1985.0	0 Occupied all-year round		2.00	1.	00 1977.0	10	\$60,000 to less than \$80,000		

Method	RecordNo	12. What is the approximate square of footage of the indoor floor space of this building of including basement and storage, but not including parking or loading areas? Please consider only the area that is affected by a heating system. Enter six 9s (999999) if Don't know	EL What is the age of the building at this location (of the first/second/third building)? of YEAR OR UESS, of TO 5 YEARS, of TO 10 YEARS, of WORE THAN 00 YEARS (LD, oCONT YEARS) of WORE THAN 00 YEARS (LD, oCONT YEARS)	DB3. How many floors does the building have?
Online	000000208			
Online	000000209			
Online	000000210			
Online	000000211			
Online	000000212			
Online	000000216			
Online	000000219			



Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-7, Attachment 2, Page 1 of 2

#### ATTENTION EGANVILLE-AREA RESIDENTS



Enbridge

500 Consumers Road North York, Ontario M2J 1P8 Canada

May 2022

#### Subject: Natural Gas expansion within your community

Dear Resident:

Enbridge Gas has asked Forum Research to conduct a survey to help evaluate the feasibility of extending the natural gas system to homes and businesses similar to yours. This online **survey will run** from May 21<sup>st</sup> – June 09<sup>th</sup>, 2022, with the intention of **gauging your interest in connecting to natural gas, should it become available in your community.** 

We are only able to accept one survey response from each property. Survey respondents must be 18 years or older and the person most responsible for making energy decisions for your property. Your survey responses will be held in confidence and only shared with Enbridge Gas in aggregate for reporting and decision-making purposes.

Although we thank all respondents for completing the survey, completing the survey does not guarantee that your property will be served by natural gas as part of this project. In addition, please know that completing the survey is not an application for natural gas service.

If you have any questions about the survey, please reach out to us at <u>ceappliacations@enbridge.com</u> or visit us online at enbridgegas.com/savewithgas.

To access the survey, please enter the following into your browser: <a href="https://survey.forumresearch.com/SE/1/UG/">https://survey.forumresearch.com/SE/1/UG/</a>

Many thanks in advance for your time.

Ahmed Al-Amry, P.Eng., PMP

**Supervisor**, Community Expansion Capital Development & Delivery

# Community Expansion Survey

Eganville, Cedar Springs

#### INTRODUCTION

Thank you for taking part in this survey! Forum Research on behalf of Enbridge Gas is conducting this survey to assist in determining whether natural gas will be expanded to your community. We are looking to hear from people 18 and over who are responsible for making energy decisions for their property. This survey should take approximately 6-7 minutes. Please be assured that we are not selling anything and the information you provide to us will be aggregated with others for reporting purposes. Please note that completing the survey does not guarantee that your property will be served by natural gas as part of this project. In addition, please know that completing the survey is not an application for natural gas, as well as cost estimates for converting or replacing water heating and space heating equipment. Actual costs may vary based on market factors and your specific needs and preferences. No specific savings or cost amount is guaranteed. Click on the arrow below to continue. Yes, continue.

Refuse

If this is not your location  $\rightarrow$  Thank and terminate

## COMMUNITY

Please select the community and street you live in.

## Eganville

Township of Bonnechere Valley Township of Admaston/Bromley Township of North Algona-Wilberforce Other (Please specify)

## **Cedar Springs**

**SCR3.** Do you own or rent this property? Own Rent (option to enter contact info for property owner)  $\rightarrow$  Thank and terminate Do not live in the area  $\rightarrow$  Thank and terminate

# SCR5. Which of the following best describes the building (or buildings) at this location?

Agriculture Commercial Farm Industrial Residential Both Residence and a Business SCR6. On average, how much is your annual heating cost for this premise including taxes?

#### **SECTION H: Heating**

# H1A. What is the primary energy source of heat for this premise? Is it...?

[RANDOMIZE] Oil Propane Electricity Wood Heat pump such as a geothermal system No heating Other [SPECIFY]

H1B. What type of system provides the primary source of heat for this premise? Is it...?

# IF H1A = OIL THEN ASK

Oil Forced Air Oil Boiler (Hot Water Radiators) Oil fireplace

# IF H1A = PROPANE THEN ASK

Propane Forced Air Propane Boiler (Hot Water Radiators) Propane fireplace

## IF H1A = ELECTRICITY THEN ASK

Electric Forced Air, Electric Baseboard, Heat pump such as a geothermal system

# IF H1A = WOOD THEN ASK

Wood Forced Air, or Wood Stoves/Fireplace Outdoor wood furnace

## No heating system OR SOMETHING ELSE [SPECIFY]

**IF H1B = NO HEATING SYSTEM, SKIP TO H8, ELSE CONTINUE** Other [SPECIFY]

## H2. How old is your heating system?

# H3. How likely are you to replace your heating system in the next 2 years? Are you...?

Extremely likely Very likely Likely Not very likely Not at all likely

## **SECTION W: Water Heating**

#### ASK ALL

Now, I would like to ask you a few questions about your water heater.

#### W1. What is the MAIN fuel source for heating your water?

Propane Oil Electricity Wood Geothermal/Ground source Other: **[SPECIFY]** 

#### W2. How old is your water heater?

5 years or less 6 to 10 years old 11 to 15 years old 16 to 25 years old Over 25 years old Don't know

#### W3. Is your water heater owned or rented?

Owned Rented Don't Know

## [ASK W5 IF W3=OWNED]

**W5.** The purchase and installation of a typical natural gas water heater costs about \$1,700 including taxes depending on the complexity of the installation. However, with natural gas, you could save up to \$350 compared to propane water heating costs, or \$100 compared to electric water heating costs. Considering this, how likely are you to convert your heating system to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

**W5a.** Natural Gas water heaters can also be rented. Typical monthly rental rates range from \$23 per month to \$30 per month including taxes. Depending on the specific style of your premises, the property owner may incur additional expenses for the conversion. However, with natural gas, you could save up to \$350 compared to propane water heating costs every year, or \$100 compared to electric water heating costs. Considering this, how likely are you to convert your water heater to natural gas? Would you say you are...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H5 IF H1B = OIL FORCED AIR OR OIL BOILER AND W5 OR W5a = NOT VERY LIKELY OR NOT AT ALL LIKELY OR W3="DON'T KNOW"] **H5.** Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace or boiler is in the range of \$4,500 to \$5,500 including taxes depending on the type of equipment you currently have.

In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save approximately \$1,700 per year by switching oil heating equipment to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your heating system to natural gas? Would you say...?

Very likely Likely Not very likely

[ASK H5a IF H1B = ELECTRIC FORCE AIR AND W5 OR W5a = NOT VERY LIKELY OR NOT AT ALL LIKELY OR W3="DON'T KNOW"]

**H5a.**Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace is in the range of \$4,500 to \$5,500 including taxes depending on the type of equipment you currently have.

In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save approximately <Eganville = \$250, Cedar

Springs = \$300> per year by switching electric heating equipment to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your heating system to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H6 IF H1B = PROPANE FORCED AIR OR PROPANE BOILER AND W5 OR W5a = NOT VERY LIKELY OR NOT AT ALL LIKELY OR W3="DON'T KNOW"] **H6.** Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting your existing heating system to natural gas is likely in the range of \$400 to \$1,000 including taxes depending on the type of equipment you currently have.

In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save approximately \$1,000 per year by switching heating equipment to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your heating system to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H7 IF H1B = ELECTRIC BASEBOARD AND W5 OR W5a = NOT VERY LIKELY OR NOT AT ALL LIKELY OR W3="DON'T KNOW"]

**H7.** Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a high efficiency natural gas furnace and adding ducting is likely to be about \$12,500 including taxes depending on the specific style and/or size of your premise. Another option would be to install a natural gas fireplace or space heater to heat the main living area, at an estimated cost of \$4,500-\$5,500.

In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save approximately <Eganville = \$250, Cedar Springs = \$300> per year by switching electric heating equipment to natural gas.

Savings are likely greater for businesses. Considering this, how likely are you to convert your heating system to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H7a IF H1A = WOOD AND W5 OR W5a = NOT VERY LIKELY OR NOT AT ALL LIKELY OR W3="DON'T KNOW"]

**H7a.** Installing a high efficiency natural gas furnace is likely to cost about \$4,500-\$5,500 if you already have forced air ductwork and \$12,500 if you don't, including taxes. A natural gas fireplace or wall heater would also cost about \$4,500-\$5,500.

In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, savings will likely be minimal from switching your wood-fired heating equipment to natural gas. However, you wouldn't need to split or store wood. Considering this, how likely are you to convert your heating system to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H8 IF H1B = NO HEATING SYSTEM, OIL FIREPLACE, PROPANE FIREPLACE, GEOTHERMAL, HEAT PUMP, OR "SOMETHING ELSE AND W5 OR W5a = NOT VERY LIKELY OR NOT AT ALL LIKELY OR W3="DON'T KNOW"] **H8.** Installing a high efficiency natural gas furnace or boiler is likely to cost about \$4,500-\$5,500 if you already have forced air ductwork or a boiler, and \$12,500 if you were to install a new forced air system requiring ductwork, including taxes. Alternatively, a natural gas fireplace or wall heater would cost about \$4,500-\$5,500.

In addition to the cost of converting your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home could save 15% or more by switching heating equipment to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your heating system to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

# SECTION H2: LIKELIHOOD TO CONNECT SPACE AND WATER HEATING

[ASK H5-WWH IF H1B = OIL FORCED AIR OR OIL BOILER AND W5 OR W5a = EXTREMELY LIKELY, VERY LIKELY OR LIKELY]

**H5** - **WWH.** Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace or boiler is in the range of \$4,500 to \$5,500 including taxes depending on the type of equipment you currently have.

In addition to the cost of converting your space and water heating, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save approximately \$2,250 per year by switching space and water heating to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your space and water heating systems to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H5a-WWH IF H1B = ELECTRIC FORCE AIR AND W5 OR W5a = EXTREMELY LIKELY, VERY LIKELY OR LIKELY]

**H5a - WWH.** Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a natural gas high efficiency furnace is in the range of \$4,500-\$5,500 including taxes depending on the type of equipment you currently have.

In addition to the cost of converting your space and water heating, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save <Eganville = \$350, Cedar Springs = \$400> per year by switching space and water heating to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your space and water heating systems to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H6-WWH IF H1B = PROPANE FORCED AIR OR PROPANE BOILER AND W5 OR W5a = EXTREMELY LIKELY, VERY LIKELY OR LIKELY ]

**H6** - **WWH.** Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting your existing heating system to natural gas is likely in the range of \$400 to \$1,000 including taxes depending on the type of equipment you currently have.

In addition to the cost of converting your space and water heating, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save \$1,350 per year by switching space and water heating to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your space and water heating systems to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H7-WWH IF H1B = ELECTRIC BASEBOARD AND W5 OR W5a = EXTREMELY LIKELY, VERY LIKELY OR LIKELY ]

**H7 - WWH.** Converting your heating system to natural gas requires some initial investment by the property owner. The cost of converting a residential heating system to a high efficiency natural gas furnace and adding ducting is likely to be about \$12,500 including taxes depending on the specific style and/or size of your premise. Another option would be to install a natural gas fireplace or space heater to heat the main living area, at an estimated cost of \$4,500-\$5,500.

In addition to the cost of converting your SPACE AND WATER heating, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home will save <Eganville = \$350, Cedar Springs = \$400> per year by switching space and water heating to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your space and water heating systems to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely [ASK H7a-WWH IF H1A = WOOD AND W5 OR W5a = EXTREMELY LIKELY, VERY LIKELY OR LIKELY ]

**H7a - WWH.** Installing a high efficiency natural gas furnace is likely to cost about \$4,500-\$5,500 if you already have forced air ductwork and \$12,500 if it doesn't, including taxes. A natural gas fireplace or wall heater would also cost about \$4,500-\$5,500.

In addition to the cost of converting your space and water heating, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, savings will likely be minimal from switching your wood-fired equipment to natural gas. However, you wouldn't need to split or store wood. Considering this, how likely are you to convert your space and water heating systems to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely

[ASK H8-WWH IF H1B = NO HEATING SYSTEM, OIL FIREPLACE, PROPANE
FIREPLACE, GEOTHERMAL, HEAT PUMP, OR "SOMETHING ELSE AND W5 OR
W5a = EXTREMELY LIKELY, VERY LIKELY OR LIKELY]
H8 - WWH. Installing a high efficiency natural gas furnace or boiler is likely to cost about \$4,500-\$5,500 if you already have forced air ductwork or a boiler, and \$12,500 if you were to install a new forced air system requiring ductwork, including taxes.
Alternatively, a natural gas fireplace or wall heater would cost about \$4,500 - \$5,500.

In addition to the cost of converting your space and water heating, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, an average home could save 15% or more per year by switching space and water heating to natural gas. Savings are likely greater for businesses. Considering this, how likely are you to convert your space and water heating systems to natural gas? Would you say...?

Extremely likely Very likely Likely Not very likely Not at all likely [ASK H9A IF H5 / H5a / H6 / H7 / H7A / H8 / H5-WWH / H5a-WWH / H6-WWH / H7-WWH / H7A-WWH / H8-WWH= NOT VERY LIKELY *OR* NOT AT ALL LIKELY] **H9a.** You indicated that you are unlikely to convert your heating system to natural gas. Can you explain why? Don't like natural gas Not interested / have no plans to change Not interested at this time/ maybe in the future Not worth it Plan on building a new home (or facility) / moving Too expensive Other: [SPECIFY]

# SECTION E: EXPANSION TIMELINE

[ASK E1 AND E2 IF EXTREMELY LIKELY, VERY LIKELY, OR LIKELY FOR ANY OF H5/H5a/H6/H7/H7a/H8/ H5-WWH/H5a-WWH/H6-WWH/H7-WWH/H7a-WWH/H8-WWH] **E1.** You indicated that you are likely to convert to natural gas. Assuming gas service is available Prior to 2026, when would you likely convert? Within the first 12 months Within 1 to 2 years Within 2 to 3 years After 3 years

**E2.** I am going to read you a list of appliances that could be powered by natural gas. For each appliance, please tell me if you would be extremely interested, very interested, interested, not very interested or not at all interested in natural gas for the appliance. [RANDOMIZE]

Fireplace Oven, range or stove Clothes dryer BBQ Other [SPECIFY]

Extremely interested Very interested Interested Not very interested Not at all interested

ASK QUESTIONS IN SECTION D IF SCR5 = RESIDENCE OR "RESIDENCE AND BUSINESS" SECTION D: DEMOGRAPHICS

I just have a few additional questions for you that will help us group your answers with others who have also participated in the research. As a reminder, your answers will be kept completely confidential and they will not be tied back to you. D1. Which of the following best describes the style of your house? Is it a ...?

A bungalow or one-story ranch A raised ranch A split level A two story A three-story house Some other style

D2. In order to have some idea as to the approximate size of your home in square feet (not including any unfinished basement space) can you tell me how many square feet your home is?

D3. In what year was your house built? Your best estimate is fine.

D3a. Which statement best describes the occupancy of this dwelling? Occupied all-year round Occupied mostly in the summer months Occupied mostly in the winter months Occupied occasionally year round Don't know

[SKIP TO D4 IF D3A = OCCUPIED ALL YEAR ROUND, ELSE CONTINUE] D3b. For approximately how many months did you use this residence during 2021?

D4. How many adults 18 years or over do you have living in your household, including yourself?

D5. And how many children 17 years or younger, if any, do you have living in your household?

D6. In what year were you born?

[ASK D6a IF REFUSE/DON'T KNOW AT D6, ELSE SKIP TO D7] D6a. Can you please tell me into which of the following age groups you fall? Are you...? 18 to 24 25 to 34 35 to 44 45 to 54 55 to 64 65 or over Refuse

# D7. And lastly, which of the following best describes your total household income before taxes?

Under \$20,000 \$20,000 to less than \$40,000 \$40,000 to less than \$60,000 \$60,000 to less than \$80,000 \$80,000 to less than \$100,000 \$100,000 to less than \$120,000 \$120,000 to less than \$140,000 \$140,000 or more Refuse

ASK QUESTIONS IN SECTION E IF SCR5 = COMMERCIAL BUSINESS, INDUSTRIAL BUSINESS, OR FARM/AGRIBUSINESS

## **SECTION E: FIRMOGRAPHICS**

There are just a few additional questions for you that will help us group your answers with others who have also participated in the research. As a reminder, your answers will be kept completely confidential and they will not be tied back to you.

**E2.** What is the approximate square footage of the indoor floor space of the main building including basement and storage, but not including parking or loading areas? Please consider only the area that is affected by a heating system.

# E3. What is the age of the main building at this location (of the first/second/third building)?

1 YEAR OR LESS, 2 TO 5 YEARS, 6 TO 10 YEARS, 11 TO 20 YEARS, 21 TO 30 YEARS, 31 TO 40 YEARS, MORE THAN 40 YEARS OLD, DON'T KNOW REFUSE

## DB3. How many floors does the building have?

E1. How many buildings (are at this location?)
One
Тwo
Three
Other (Specify)
Part of a building
Don't know

Refuse

Thank you for your feedback. We appreciate your willingness to participate in this survey.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-8 Page 1 of 4

# ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1, Attachment 6 (Forum Research Report)

# Question(s):

- a) Please provide a detailed list of any difference in the Forum survey questions as between the survey run in Eganville and those run in Sandford, Selwyn and Hidden Valley, including different introductory information provided to respondents.
- b) For each difference between the surveys that did not arise from energy price differences as between the locations, please explain the reason for the different wording used in Eganville.

## Response:

a) All of the cost savings estimates for switching to natural gas presented in the Eganville survey were different than those presented in the Sandford, Selwyn, and Hidden Valley surveys. These differences were the result of the regional energy costs assumptions applicable to each project area at the time the surveys were conducted. The following questions in the Eganville survey included cost savings estimates: W5, W5a, H5, H5a, H6, H7, H7a, H8, H5-WWH, H5a-WWH, H6-WWH, H7-WWH, H7a-WWH, H8-WWH. The full text for each question can be found in the survey instrument at Attachment 3 to Exhibit I.ED-7.

The Eganville survey did not include 5 questions that were included in the Sandford, Selwyn, and Hidden Valley surveys (NEW 1, NEW 2, NEW 3, H9 and H9-WWH). The full text of these questions (as present in the Sandford, Selwyn, and Hidden Valley surveys) is included in Table 1 below, along with further information about the purpose of each question. <u>Table 1</u> <u>Survey questions included in Sandford, Selwyn, and Hidden Valley Surveys, but not Eganville.</u>

Line No.	Survey Question	Purpose of Question	Survey Text
1	NEW 1	For respondents that indicated they had a heat pump in an earlier question, this follow-up question asked which kind of heat pump it is.	What kind of heat pump do you have? Geothermal or ground source heat pump Air Source Heat Pump Other [SPECIFY]
2	NEW 2	Provided respondents who indicated they were not very knowledgeable about heat pumps or had never heard of them with an introduction to the technology.	How knowledgeable would you say that you are about heat pumps including air source heat pumps, geothermal or ground source heating and cooling systems for homes? Very knowledgeable Somewhat knowledgeable Not very knowledgeable Never heard of it <if "never<br="" "not="" answered="" knowledgeable"="" or="" respondent="" the="" very="">heard of it", the following was displayed:&gt; A heat pump is an electrically driven device that can provide heating by transferring thermal energy from the earth or air into your home. Many heat pumps can also operate in the opposite direction, cooling the home by removing the heat from the inside and sending it outdoors or into the ground. Common types are air source heat pumps and ground source heat pumps (sometimes called geothermal systems). Many homes in moderate climates can rely on these systems to heat or cool their homes year-round; however, in colder climates a specialized "cold climate" heat pump or a supplementary heating source is usually needed. Because heat pumps use electricity to move thermal energy to heat and cool your home, they are more efficient than traditional heating and cooling systems which could result in lower annual operating costs compared to other energy sources. However, these systems can have a high upfront cost, and may require modification to ducting designed for a forced-air furnace or central air conditioning system to distribute hot and cold air in your home. Upgrades to your electrical panel may also be required to accommodate a heat pump. Government incentives are currently available to bring down the cost.</if>

# Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-8 Page 3 of 4

	NEW 3		How likely would you be to seek out more information about installing a heat pump heating and cooling system for your home?
3			Extremely likely Very likely Likely Not very likely Not at all likely Don't Know
4	H9	Gauged interest in connecting to natural gas among respondents currently using a heat pump as their primary heating source. This version of the question was provided to respondents not interested in switching their water heater to natural gas.	<ul> <li>Homeowners with a heat pump heating and cooling system could consider using natural gas as a supplemental heating source. The cost of a high efficiency natural gas furnace is in the range of \$4,500-\$5,500 including taxes. Alternatively, a natural gas fireplace or wall heater would cost about \$4,500-\$5,500.</li> <li>In addition to the cost of supplementing your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, a typical home costs \$1,500 per year to fully heat with natural gas. Costs would be less if using natural gas for supplemental heating only.</li> <li>The federal carbon pricing program will result in increases to natural gas prices over time. The federal carbon charge is currently 9.79 cents per cubic meter, making up approximately 15% of the total natural gas bill for a typical home. The federal carbon charge will increase each year, reaching 18.11 cents per cubic meter in 2025 and 32.40 cents per cubic meter in 2030. Considering this, how likely are you to connect to natural gas? Would you say?</li> <li>Extremely likely</li> <li>Very likely</li> <li>Not very likely</li> <li>Not very likely</li> <li>Not very likely</li> <li>Not very likely</li> </ul>

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5	H9 - WWH	Gauged interest in connecting to natural gas among respondents currently using a heat pump as their primary heating source. This version of the question was shown to respondents interested in switching their water heater to natural gas.	Homeowners with a heat pump heating and cooling system could consider using natural gas as a supplemental heating source. The cost of a high efficiency natural gas furnace is in the range of \$4,500-\$5,500 including taxes. Alternatively, a natural gas fireplace or wall heater would cost about \$4,500-\$5,500. In addition to the cost of supplementing your heating equipment, an average home would be required to make a financial contribution toward the cost of constructing the pipeline, which will be split into monthly payments based on how much gas you use. With the surcharge added, a typical home costs \$2,000 per year for water heating and to fully heat with natural gas. Cost would be less if using natural gas for supplemental heating only. The federal carbon pricing program will result in increases to natural gas prices over time. The federal carbon charge is currently 9.79 cents per cubic meter, making up approximately 15% of the total natural gas bill for a typical home. The federal carbon charge will increase each year, reaching 18.11 cents per cubic meter in 2025 and 32.40 cents per cubic meter in 2030. Considering this, how likely are you to connect to natural gas? Would you say?
			Extremely likely Very likely
			Likely Not very likely
			Not at all likely

b) The Eganville survey was developed prior to the Sandford, Selwyn, and Hidden Valley surveys. For the Sandford, Selwyn, and Hidden Valley surveys, questions NEW1, NEW2, and NEW3, were added to collect data on the incidence, level of awareness, and interest in learning more about air source heat pumps to assist in Enbridge Gas's ongoing efforts to evolve its community expansion surveys. Questions H9 and H9-WWH were added to provide more specific information about switching to natural gas for respondents currently using a heat pump as their primary heating source.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-9 Page 1 of 3

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1, Attachment 6 (Forum Research Report)

#### Preamble:

These questions are for Forum Research.

#### Question(s):

- Please provide all excerpts from all materials provided to residents that provide details on the comparative cost-effectiveness of heating with electric air source heat pumps versus gas.
- b) Please individually indicate whether respondents were informed of the following facts. If yes, please provide the precise text used in the materials or survey script:

Information Communicated to Customers			
Information		Whether communicated to the city (Y/N)	If no, why not; if yes, where & when
(i)	That the federal government is offering \$5,000 rebates for customers to switch to high- efficiency electric heat pumps, which are not available for gas furnaces. <sup>1</sup>		
(ii)	That the federal government is offering an <i>additional</i> \$5,000 in rebates for customers to switch from oil to high-efficiency electric heat pumps if they earn a median income or lower (e.g., \$122,000 after-tax income for a family of 4 in Ontario) through the Oil to Heat Pump Affordability Program. <sup>2</sup>		
(iii)	That the federal government is now providing up to \$40,000 in interest		

<sup>&</sup>lt;sup>1</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

<sup>&</sup>lt;sup>2</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

	free loans, which can be put	
	towards conversions to electric heat	
	pumps, and not gas equipment,	
	through the Greener Homes Loan. <sup>3</sup>	
(iv)	That heat pumps could save a	
	customer approximately \$1,200 in	
	annual heating costs versus a gas	
	furnace for a house with a	
	moderate heat load (or whatever	
	Enbridge's estimated savings are). <sup>4</sup>	
(v)	That Enbridge may charge	
	customers for a connection	
	depending on the distance of the	
	building from the road	
(vi)	That heat pumps result in lower	
	annual energy costs compared to	
	traditional gas equipment for home	
	heating	
(vii)	That heat pumps significantly	
	reduce summer cooling costs.	
(viii)	That natural gas is a potent	
	greenhouse gas and its combustion	
	generates approximately 1/3 <sup>rd</sup> of	
	Ontario's greenhouse gas	
	emissions. <sup>5</sup>	
(ix)	That heat pumps result in far less	
	greenhouse gas emissions than	
	gas furnaces. <sup>6</sup>	

## Response:

The following responses were provided by Enbridge Gas:

- a) No information was provided to residents with details on the comparative costeffectiveness of heating with natural gas versus air source heat pumps specifically.
- b) The "facts/statements" provided by ED within the interrogatory are oversimplifications, inaccurate, and/or omit other important considerations and therefore could be misleading. For example, ED identifies annual operating costs of electric heat pumps and the rebates available to offset upfront capital costs of electric heat pumps but ignores information regarding upfront capital costs of electric heat pumps. As with any capital investment, upfront capital costs are an important consideration, not just annual operating costs. Enbridge Gas does not necessarily accept the statements made by ED as complete/accurate representations of the information.

<sup>&</sup>lt;sup>3</sup> EB-2022-0249, Exhibit I.ED.20 & Exhibit I.ED.5.

<sup>&</sup>lt;sup>4</sup> EB-2022-0249, Exhibit I.ED.16, Attachment 7, Ottawa, 4 Ton Heating Load, "Cost savings" row, averaged; EB-2022-0249, Exhibit I.ED.5.

<sup>&</sup>lt;sup>5</sup> EB-2022-0249, Exhibit I.ED.5.

<sup>&</sup>lt;sup>6</sup> Ibid.

Enbridge Gas is not responding to the validity or accuracy of ED's statements and is rather providing responses to the direct questions posed by ED.

r	1	T
Information	Whether communicated to the city (Y/N)	If no, why not; if yes, where & when
(i) — (iii)	N	Consumer interest in natural gas is influenced by several financial and non-financial considerations which are unique to each consumer. While Enbridge Gas does provide some information to remind respondents of possible considerations, the objective of the survey is not to promote specific energy solutions by providing selective/limited information. Rather, the objective of the survey is to gauge the actual energy interests of consumers, which incorporates all considerations that matter to the respondent.
(iv)	N	The information within the interrogatory ignores information regarding upfront capital costs of electric heat pumps and therefore could be misleading. As with any capital investment, upfront capital costs are an important consideration, not just annual operating costs.
(v)	Ν	The information within the interrogatory is misleading because extra line charges do not always apply. When extra line charges apply, they can vary significantly by situation and are therefore difficult to communicate in the survey format. Comprehensive information is readily available on the Enbridge Gas community expansion website, including information regarding the extra length charge under the FAQ section: 'What does it cost to install a natural gas pipeline to connect my home?' <sup>7</sup>
(vi) – (viii)	N	Consumer interest in natural gas is influenced by several financial and non-financial considerations which are unique to each consumer. While Enbridge Gas does provide some information to remind respondents of possible considerations, the objective of the survey is not to promote specific energy solutions by providing selective/limited information. Rather, the objective of the survey is to gauge the actual energy interests of consumers, which incorporates all considerations that matter to the respondent.
(ix)	N	The information within the interrogatory is misleading because the emissions from heat pumps and natural gas furnaces depend on the carbon intensity of the energy source used. A furnace using renewable natural gas could have lower emissions than a heat pump powered by electricity, for example.

Table 1

Information Communicated to Customers in the Forum Research Survey

<sup>&</sup>lt;sup>7</sup> https://www.enbridgegas.com/residential/new-customers/community-expansion/faq

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-10 Page 1 of 2

# ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

#### Reference:

Exhibit B, Tab 1, Schedule 1

#### Question(s):

a) Please complete the following table showing the typical or average costs for a home to convert to natural gas space heating from different existing heating systems, including all costs, such as ductwork required for conversions from electric baseboards Please include both Enbridge's best estimates and the figures provided to customers in the Forum surveys.

Cost of Converting to Natural Gas Space Heating				
Existing Equipment	Enbridge best estimate	Figure used in Forum survey	Source for cost estimate underlying the Forum survey	
Electric baseboards (no				
ductwork)				
Electric forced-air furnace				
Electric heat pump				
Oil furnace				
Propane furnace				

#### Response:

Enbridge Gas does not have the requested information with respect to actual homes in the Project area. Enbridge Gas cautions against drawing conclusions regarding actual homes in the Project area using general or theoretical estimates/averages, as conversion costs for actual homes can vary. General or theoretical estimates/averages should be used for illustrative purposes only.

Regarding general illustrative estimates:

• Enbridge Gas has not established "best estimates" delineated in the manner sought by ED (i.e., by specific existing non-natural gas configuration to natural gas). Please see Table 2 in response at Exhibit I.ED-28 part a), for an estimated

range of potential all-in conversion costs to natural gas configurations, encompassing a variety existing non-natural gas configurations.

• Regarding the Forum survey, please see Table 1. The illustrative cost estimates used do not rely on formal sources; rather they are based on Enbridge Gas's general understanding of the illustrative cost estimates.

Existing Equipment	Figure used in Forum survey
Electric baseboards (no ductwork)	\$12,500
Electric forced-air furnace	\$4,500-\$5,500
Electric heat pump	Switching from an electric heat pump to a natural gas heating system was not specifically addressed.
Oil furnace	\$4,500-\$5,500
Propane furnace	\$400 to \$1,000 (for conversion of existing equipment)

Table 1 Cost of Converting to Natural Gas Space Heating
Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-11 Page 1 of 1

# ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

### Interrogatory

### Reference:

Exhibit B, Tab 1, Schedule 1

### Question(s):

Please reproduce the customer attachment forecast broken down by the current customer primary heating system/fuel. Please make and state assumption as necessary (e.g., Enbridge may estimate the fuel type of connecting customers based on the proportions of customers with that fuel type indicating an interest in converting to gas in the surveys). Please provide the underlying calculations. We are most interested in the overall totals after 10 years, but please also provide the annual breakdown if possible.

### Response:

Enbridge Gas does not forecast attachments by existing fuel type and therefore cannot provide the requested information. Likelihood to connect to natural gas, broken out by incumbent primary heating fuel source is provided in the Forum Research report found at Exhibit B, Tab 1, Schedule 1, Attachment 6, Table 2.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-12 Plus Attachment Page 1 of 1

# ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

### Interrogatory

Reference:

Exhibit E

### Question(s):

- a) Please provide a copy of the most recent eight quarterly reports for schedule 2 community expansion projects that Enbridge is required to prepare and submit pursuant to s. 10.1(1) or O. Reg. 24/19.
- b) If there are any discrepancies between the information in the quarterly reports pertaining to the Eganville project and the information in this application, please detail those in a table with a reconciliation of the differences.

### Response:

- a) Please refer to Attachment 1 to this response for a copy of the most recent eight quarterly reports for schedule 2 community expansion projects.
- b) Enbridge confirms there are no discrepancies between the quarterly report (Attachment 1, Bonnechere Valley tab) and the information in this Application.

## Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-12, Attachment 1, Page 1 of 27

# Natural Gas Expansion Program - Quarterly Report for NGEP Phase 2 Projects Submitted to Ministry of Energy pursuant to O. Reg. 451/21 under the Ontario Energy Board Act, 1998 Last Modified: December 18, 2023

			1		1	1	1		
1. Kawartha Lakes		Q1 2022	Q2 2022	Q3 2022**	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of		- 0	In Deserves	- 0	In Deserves	In D	In December 1	In December 1	-
the project.		in Progress	in Progress	in Progress	in Progress	in Progress	in Progress	in Progress	in Progress
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		04.0000		0					
line under section 90 of the Act, if such an application is required.		Q1 2022	Complete	Complete	complete	Complete	Complete	Complete	Complete
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Requested	Requested	Requested
leave to construct referred to above.	Other	Required	Required	Required	Required	Required	Requested	Requested	Requested
	Municipal Consent	Required	Required	Required	Required	Required	Requested	Requested	Requested
	Special Road Permit	Required	Required	Required	Required	Required	Not Required	Not Required	Not Required
4. The schedule for construction of the project and the progress made in the preceding						Scheduled for Q1	Scheduled for Q1	Scheduled for Q1	
quarter.		Scheduled for Q2 2022	Scheduled for Q2 2023	Scheduled for Q2 2023	Scheduled for Q3 2023	2024	2024	2024	Scheduled for Q1 2024
5. Confirmation of the date on which the project is anticipated to come into service or the									
date on which the project came into service, as applicable.		Q1 2024	Q1 2024	Q1 2024	Q1 2024	Q1 2024	Q3 2024	Q3 2024	Q3 2024
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	3854	3854	3854	3854	3589	3517*	3517	3517
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	120	120	120	120	185	170*	170	170
Forecasted customer connections (10-year forecast).	Institutional Forecast	1	1	1	1	1	1*	1	1
	Agricultural Forecast	1	1	1	1	1	0*	0	0
	Industrial Forecast	2	2	2	2	2	1*	1	1
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection		-	-			-			-
4 (2) in respect of the project.**		0	0	0	0	0	0	0	0

\*the revised count of 3689 is due to the 2022 market research results and associated project scope refinement \*\*amount received from IESO

The Leave To Construction application for the Kawartha Lakes Community Expansion project (Bobcaygeon) was adjourned in Q3 2022 to allow EGI to refresh its market research and include additional information as requested by intervenors.

2. Amherstburg		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of		None	None	None	None	None	In Progress	In Progress	In Progress
the project.		None	None	None	None	None	in rogicss	in rogicis	minopicas
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		Linder Development	Under Douelenment	Lindor Dovelonment	Linder Development	03 2022	04 3032	04 2022	01 2024
line under section 90 of the Act, if such an application is required.		onder bevelopment	onder bevelopment	onder bevelopment	onder bevelopment	Q3 2023	Q4 2023	Q4 2023	QI 2024
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Required	Required	Required	Required	Required	Required	Required	Required
	Municipal Consent	Required	Required	Required	Required	Required	Required	Required	Required
	Special Road Permit	Not Required	Not Required	Required	Required	Required	Required	Required	Required
4. The schedule for construction of the project and the progress made in the preceding		Under Development	Under Development	Under Brudenment	Under Development	Calculation 02 2024	Scheduled for Q3	Scheduled for Q4	Colored allocations and another
quarter.		Under Development	Under Development	under Development	under Development	Scheduled for Q2 2024	2024	2024	Scheduled for Q4 2024
5. Confirmation of the date on which the project is anticipated to come into service or the		Under Development	Under Development	Under Brudenment	Under Development	03 3034	04 2024	04 2024	01.2025
date on which the project came into service, as applicable.		Under Development	Under Development	under Development	under Development	Q3 2024	Q4 2024	Q4 2024	Q1 2025
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	92	92	92	92	92	92	92	127
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	0	0	0	0	0	0	0	0
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection							0		
4 (2) in respect of the project.*		U.	U.	0	0	0	U	0	0

4. Burk's Falls		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of		News	News	Ale	Maran	News	Convoluto	Consolato	Convoluto
the project.		None	None	None	None	None	complete	complete	complete
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		Net An elizable	Net tealleshie	Nat Applicable	Net Acellechie	Net Analischie	Net Analischis	Net testinghis	Net testerble
line under section 90 of the Act, if such an application is required.		Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
leave to construct referred to above.	Other	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
	Municipal Consent	Requested	Complete	Complete	Complete	Complete	Complete	Complete	Complete
	Special Road Permit MTO)	Requested	Requested	Complete	Complete	Complete	Complete	Complete	Complete
4. The schedule for construction of the project and the progress made in the preceding						Construction	Construction	Construction	Construction
quarter.		Scheduled for Q3 2022	Scheduled for Q4 2022	Construction In Progress	Construction Complete	Complete	Complete	Complete	Complete
5. Confirmation of the date on which the project is anticipated to come into service or the									
date on which the project came into service, as applicable.		Q4 2022	Q4 2022	Q4 2022	Q4 2022	Complete	Complete	Complete	Complete
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	39	39	39	39	39	39	39	39
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	2	2	2	2	2	2	2	2
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	10	10	10	10	10
number of services installed will be provided each guarter (totals are cumulative).	Commercial Actual	0	0	0	1	1	1	1	1
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection		-	-	_		-	-	-	-
4 (2) in respect of the project.*		0	U	U	U	0	0	U	0

5. Caledon		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None							
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development							
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Not Required							
	Municipal Consent	Required							
	Special Road Permit	Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development							
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	94	94	94	94	94	94	94	94
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	2	2	2	2	2	2	2	2
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	4	4	4	4	4	4	4	4
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

6 Purlington		01 2022	02 2022	02 2022	04 2022	01 2022	03 2022	02 2022	04 2022
		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2025	Q2 2023	Q3 2023	Q4 2025
<ol> <li>Ine status of any community consultations undertaken by the gas distributor in respect of the ansient</li> </ol>		In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
the project.									
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon</li></ol>		03 2022	04 2024	04 2024	04 2024	04 2024	04 2024	04 2024	04 2024
line under section 90 of the Act, if such an application is required.		4, 1011	Q41014	4 2024	041014	04 2024	041014	Q4 2024	04 1014
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Required	Required	Required	Required	Required	Required	Required	Required
	Municipal Consent	Required	Required	Required	Required	Required	Required	Required	Required
	Special Road Permit	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
4. The schedule for construction of the project and the progress made in the preceding				Schedule Under					
quarter.		Scheduled for Q4 2023	Schedule Under Development	Development	Development	Development	Development	Development	Development
5. Confirmation of the date on which the project is anticipated to come into service or the									
date on which the project came into service, as applicable.		Under Development	Under Development	Under Development	Under Development	Under Development	Under Development	Under Development	Under Development
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	92	92	92	92	92	92	92	92
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	1	1	1	1	1	1	1	1
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each guarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection		_	-	-	-	-	-	-	_
4 (2) in respect of the project *	1	U	U	U	U	U III	0	U	0

Last mounda. Detember 10, 2025									
7. East Hawkesbury Township		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None							
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Q4 2024						
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Not Required							
	Municipal Consent	Required							
	Special Road Permit	Not Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development							
<ol> <li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li> </ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	299	299	299	299	299	299	299	299
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	15	15	15	15	15	15	15	15
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	1	1	1	1	1	1	1	1
	Industrial Forecast	3	3	3	3	3	3	3	3
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	0

8. East Gwillimbury		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	In Progress	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Q4 2023	Q4 2023	Complete				
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Required							
	Municipal Consent	Required							
	Special Road Permit	Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development	Scheduled for Q3 2024						
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development	Q2 2025						
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	391	391	391	391	391	391	391	344
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	19	19	19	19	19	19	19	15
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	3	3	3	3	3	3	3	6
	Industrial Forecast	9	9	9	9	9	9	9	4
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

9. Bonnechere Valley		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Q4 2022	Q1 2023	Q1 2023	Q1 2023	Q2 2023	Q3 2023	Complete	Complete
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
	Municipal Consent	Required	Required	Required	Required	Required	Required	Required	Required
	Special Road Permit	Required	Required	Required	Required	Required	Required	Required	Required
<ol><li>The schedule for construction of the project and the progress made in the preceding quarter.</li></ol>		Under Development	Under Development	Under Development	Scheduled for Q2 2024	Scheduled for Q2 2024	Scheduled for Q2 2024	Scheduled for Q3 2024	Scheduled for Q3 2024
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development	Under Development	Under Development	Q3 2025	Q2 2026	Q2 2026	Q3 2026	Q3 2026
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	581	581	581	581	584*	584*	656*	656*
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	79	79	79	79	70*	70*	63*	63*
Forecasted customer connections (10-year forecast).	Institutional Forecast	3	3	3	3	0*	0*	2*	2*
	Agricultural Forecast	1	1	1	1	2*	2*	2*	2*
	Industrial Forecast	10	10	10	10	10	10	0*	0*
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.**</li> </ol>		0	0	0	0	0	0	0	0

\*the revised count of 723 customers is based on forecast refinement \*\*amount received from IESO

10. South Glengarry Township		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of the project.		None	None	None	None	None	None	In Progress	In Progress
<ol> <li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li> </ol>		Under Development	Q4 2024						
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Not Required							
leave to construct referred to above.	Other	Not Required							
	Municipal Consent	Required							
	Special Road Permit	Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development							
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	71	71	71	71	71	71	71	71
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	4	4	4	4	4	4	4	4
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	2	2	2	2	2	2	2	2
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	0

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11. Grimsby-Lincoln		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		In Progress							
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development							
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Not Required	Not Required	Required	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Not Required							
	Municipal Consent	Required							
	Special Road Permit	Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development							
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	0	0	0	0	0	0	0	0
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	2	2	2	2	2	2	2	0
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	7	7	7	7	7	7	7	4
	Industrial Forecast	0	0	0	0	0	0	0	1
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

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#### Natural Gas Expansion Program - Quarterly Report for NGEP Phase 2 Projects Submitted to Ministry of Energy pursuant to O. Reg. 451/21 under the Ontario Energy Board Act, 1998 Last Modified: December 18, 2023

12. Haldimand		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of		- P	In Decement	- D		In December	Consolato	Consister	Considera
the project.		in Progress	in Progress	in Progress	in Progress	in Progress	complete	complete	compiete
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		Constate	Complete	Convoluto	Consolution	Conveloto	Complete	Consolato	Constato
line under section 90 of the Act, if such an application is required.		Complete	Complete	complete	complete	Complete	complete	complete	compiete
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
leave to construct referred to above.	Other	Required	Requested	Requested	Complete	Complete	Complete	Complete	Complete
	Municipal Consent	Required	Required	Complete	Complete	Complete	Complete	Complete	Complete
	Special Road Permit	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
4. The schedule for construction of the project and the progress made in the preceding		Calculated for 02 2022	Cabadalad faa 02 2022	Calculation Of 2022	Construction In	Construction	Construction	Construction	Construction
quarter.		Scheduled for Q3 2022	Scheduled for Q3 2022	Scheduled for Q4 2022	Progress	Complete	Complete	Complete	Complete
5. Confirmation of the date on which the project is anticipated to come into service or the		04 2022	04 3033	04 2022	04 2022	Conveloto	Complete	Consolato	Constato
date on which the project came into service, as applicable.		Q4 2022	Q4 2022	Q4 2022	QI 2023	Complete	complete	complete	compiete
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	112	112	112	112	112	112	112	112
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	0	0	0	0	0	0	0	0
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	6	64	64	64
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection						Funding received in	Funding received in	Funding received in	Funding received in
4 (2) in respect of the project.*		U	U	U	\$ 2,827,923.00	Q4 2022	Q4 2022	Q4 2022	Q4 2022

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13. City of Hamilton		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Under Development	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
	Municipal Consent	Required	Required	Required	Required	Required	Required	Required	Required
	Special Road Permit	Required	Required	Required	Required	Required	Required	Required	Required
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Schedule Under Development	Schedule Under Development	Schedule Under Development	Schedule Under Development	Schedule Under Development	Schedule Under Development	Construction in progress	Construction in progress
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development	Under Development	Under Development	Under Development	Under Development	Q4 2023 & Q4 2024	Q4 2023 & Q4 2024	Q4 2023 & Q4 2024
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	0	0	0	0	0	0	0	0
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	12	12	12	12	12	12	12	12
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

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#### Natural Gas Expansion Program - Quarterly Report for NGEP Phase 2 Projects Submitted to Ministry of Energy pursuant to O. Reg. 451/21 under the Ontario Energy Board Act, 1998 Last Modified: December 18, 2023

14. Huntsville		01 2022	02 2022	03 2022	04 2022	01 2023	02 2023	03 2023	04 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	In Progress	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Q4 2022	Q4 2022	Q4 2022	Q4 2022	Complete	Complete	Complete	Complete
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Complete	Complete	Complete
leave to construct referred to above.	Other	Required	Required	Required	Required	Required	Required	Required	Required
	Municipal Consent	Required	Required	Required	Required	Required	Requested	Requested	Complete
	Special Road Permit	Not Required	Not Required	Not Required					
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Scheduled for Q3 2023	Scheduled for Q3 2023	Scheduled for Q3 2023	Construction Complete				
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development	Q3 2023	Q3 2023	Q3 2023	Q4 2023	Q4 2023	Q4 2023	Q4 2023
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	103	103	103	110	110	130	130	130
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	0	0	0	0	0	0	0	0
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	Ö	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	Ö	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	Ö	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	\$ 1,899,859.00

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#### Natural Gas Expansion Program - Quarterly Report for NGEP Phase 2 Projects Submitted to Ministry of Energy pursuant to O. Reg. 451/21 under the Ontario Energy Board Act, 1998 Last Modified: December 18, 2023

15. Kenora District		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of		In Progress	In Progress	Complete	Complete	Complete	Complete	Complete	Complete
the project.					p		pt-		
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
line under section 90 of the Act, if such an application is required.		Not Applicable	Not Applicable	Not Applicable	посяррасовіс	Not Applicable	Not Applicable	Not Applicable	Not Applicable
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Requested	Complete	Complete	Complete	Complete	Complete	Complete	Complete
leave to construct referred to above.	Other	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
	Municipal Consent	Requested	Complete	Complete	Complete	Complete	Complete	Complete	Complete
	Special Road Permit (MTO)	Requested	Complete	Complete	Complete	Complete	Complete	Complete	Complete
4. The schedule for construction of the project and the progress made in the preceding		Schodulod for O2 2022	Schodulod for O2 2022	Construction Complete	Construction	Construction	Construction	Construction	Construction
quarter.		Scheduled for Q3 2022	Scheduled for QS 2022	construction complete	Complete	Complete	Complete	Complete	Complete
5. Confirmation of the date on which the project is anticipated to come into service or the		02 2022	02 2022	Complete	Complete	Complete	Complete	Complete	Complete
date on which the project came into service, as applicable.		0,5 2022	Q3 2022	complete	complete	complete	complete	complete	complete
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	27	27	33	33	33	33	33	33
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	2	2	2	2	2	2	2	2
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	1	1	1	1	1	1	1	1
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	27	32	32	32	32	32	32
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	2	3	3	3	3	3	3
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	1	1	1	1	1	1	1
7. The amounts in any variance accounts established by the gas distributor under subsection			-	-	-	-	_	_	-
4 (2) in respect of the project.*		U	U	0	0	0	0	0	U

16. Drummond		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	None	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development							
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Not Required							
	Municipal Consent	Required							
	Special Road Permit	Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development							
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	282	282	282	282	282	282	282	282
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	40	40	40	40	40	40	40	40
Forecasted customer connections (10-year forecast).	Institutional Forecast	2	2	2	2	2	2	2	2
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	10	10	10	10	10	10	10	10
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

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17. Merrickville-Wolford		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	None	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Q1 2024	Q2 2024					
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Required							
	Municipal Consent	Required							
	Special Road Permit	Not Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development							
<ol> <li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li> </ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	58	58	58	58	58	58	58	58
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	6	6	6	6	6	6	6	6
Forecasted customer connections (10-year forecast).	Institutional Forecast	2	2	2	2	2	2	2	2
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	3	3	3	3	3	3	3	3
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	0

18. Mohawks of the Bay of Quinte		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		In Progress	In Progress	In Progress	In Progress				
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Q4 2022	Q4 2022	Q4 2022	Q4 2022	Complete	Complete	Complete	Complete
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Requested	Requested	Complete
leave to construct referred to above.	Other	Required	Required	Required	Required	Required	Requested	Complete	Complete
	Municipal Consent	Required	Required	Required	Required	Required	Requested	Complete	Complete
	Special Road Permit	Required	Required	Required	Required	Required	Required	Complete	Complete
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Scheduled for Q2 2023	Scheduled for Q2 2023	Scheduled for Q2 2023	Scheduled for Q3 2023	Scheduled for Q3 2023	Scheduled for Q3 2023	Scheduled for Q4 2023	Scheduled for Q4 2023
<ol> <li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li> </ol>		Under Development	Under Development	Under Development	Q2 2024				
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	124	124	166	166	166	166	166	166
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	1	1	11	11	11	11	11	11
Forecasted customer connections (10-year forecast).	Institutional Forecast	1	1	1	1	1	1	1	1
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	1	1	1	1	1	1
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	\$8,080,907

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19. West Grey		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	None	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Under Development	Under Development	Under Development	Q3 2023	Q3 2023	Q3 2023	Complete
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Not Required	Not Required	Not Required	Not Required				
	Municipal Consent	Required	Required	Required	Required	Required	Required	Required	Required
	Special Road Permit	Not Required	Not Required	Not Required	Not Required				
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development	Under Development	Under Development	Under Development	Scheduled for Q2 2024	Scheduled for Q2 2025	Scheduled for Q3 2024	Scheduled for Q2 2024
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development	Under Development	Under Development	Under Development	Q3 2024	Q4 2025	Q1 2025	Q1 2025
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	188	188	188	208	182	182	201	201
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	28	28	28	25	34	34	26	21
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	1	1	1	1	1	1	0	5
	Industrial Forecast	2	2	2	2	2	2	3	3
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

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20. Perth East		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	None	Complete	Complete	Complete
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Not Applicable	Not Applicable	Not Applicable					
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
leave to construct referred to above.	Other	Not Required	Not Required	Not Required					
	Municipal Consent	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
	Special Road Permit	Not Required	Not Required	Not Required					
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Scheduled for Q2 2022	Construction Complete	Construction Complete	Construction Complete	Construction Complete	Construction Complete	Construction Complete	Construction Complete
<ol> <li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li> </ol>		Q2 2022	Complete	Complete	Complete	Complete	Complete	Complete	Complete
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	35	35	37	37	37	37	37	37
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	5	5	3	3	3	3	3	3
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	1	1	0	0	0	0	0	0
	Industrial Forecast	3	3	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	37	37	37	37	38	39	39
The number of services installed will be provided each guarter (totals are cumulative).	Commercial Actual	0	3	3	3	3	4	4	4
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	\$ 814,850	0	0	0	0	0	0

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21. Prince Edward County		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	In Progress	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Under Development	Under Development	Q2 2023	Q2 2023	Q3 2023	Q1 2024	Q1 2024
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Not Required	Not Required	Required	Required	Required	Required	Required	Required
	Municipal Consent	Required	Required	Required	Required	Required	Required	Required	Required
	Special Road Permit	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development	Under Development	Scheduled for Q4 2023	Scheduled for Q4 2023	Scheduled for Q1 2024	Scheduled for Q1 2025	Scheduled for Q2 2025	Scheduled for Q2 2025
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development	Under Development	Under Development	Q1 2024	Q3 2024	Q3 2024	Under Development	Under Development
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	134	134	134	180	180	187	187	118
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	13	13	13	15	15	15	15	14
Forecasted customer connections (10-year forecast).	Institutional Forecast	1	1	1	1	1	1	1	0
	Agricultural Forecast	1	1	1	0	0	0	0	0
	Industrial Forecast	3	3	3	2	2	1	1	1
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

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22. Red Rock First Nation		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of		None	None	In Brogross	la Bragrars	In Brogross	In Brograce	In Brograss	In Brograss
the project.		None	None	in Progress	in Progress	in Flogless	in Flogress	in Flogress	in Flogress
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		Under Development							
line under section 90 of the Act, if such an application is required.		Under Development							
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Required							
	Municipal Consent	Required							
	Special Road Permit	Required							
4. The schedule for construction of the project and the progress made in the preceding		Under Development							
quarter.		Under Development							
5. Confirmation of the date on which the project is anticipated to come into service or the		Under Development							
date on which the project came into service, as applicable.		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	68	68	68	68	68	68	68	68
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	9	9	9	9	9	9	9	9
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	0	0	0	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection		-	_	-	-	-	-	-	-
4 (2) in respect of the project.*		U	U	U	U	U	U	U	U

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23. Uxbrdge Township		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	In Progress	In Progress	In Progress	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Under Development	Q1 2023	Q2 2023	Q2 2023	Q3 2023	Q3 2023	Q3 2023
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Required	Required	Requested
leave to construct referred to above.	Other	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
	Municipal Consent	Required	Required	Required	Required	Required	Required	Required	Requested
	Special Road Permit	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
<ol><li>The schedule for construction of the project and the progress made in the preceding quarter.</li></ol>		Schedule Under Development	Schedule Under Development	Scheduled for Q1 2024	Scheduled for Q2 2024	Scheduled for Q2 2024	Scheduled for Q2 2024	Scheduled for Q3 2024	Scheduled for Q3 2024
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development	Under Development	Under Development	Q1 2025	Q1 2025	Q1 2025	Q1 2025	Q1 2025
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	130	130	130	168	174	174	174	174
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	6	6	6	7	7	7	7	7
Forecasted customer connections (10-year forecast).	Institutional Forecast	1	1	1	1	1	1	1	1
	Agricultural Forecast	1	1	1	1	1	1	1	1
	Industrial Forecast	2	2	2	0	0	0	0	0
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	0

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24. Selwyn Township		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of the project.		In Progress	In Progress	In Progress					
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Q2 2022	Q4 2022	Q4 2022	Q4 2022	Complete	Complete	Complete	Complete
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	Required	Required	Required	Complete	Complete	Complete
leave to construct referred to above.	Other	Not Required	Not Required	Not Required					
	Municipal Consent	Required	Required	Required	Required	Required	Requested	Complete	Complete
	Special Road Permit	Not Required	Not Required	Not Required					
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Scheduled for Q4 2022	Scheduled for Q3 2023	Scheduled for Q3 2023	Scheduled for Q4 2023	Construction Complete			
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Q2 2023	Q1 2024	Q1 2024	Q4 2023				
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	60	60	55	66	66	66	66	66
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	17	17	17	14	14	14	14	14
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	1	1	1	1	1	1
	Industrial Forecast	0	0	5	6	6	6	6	6
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	\$ 1,674,964.00

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25. Severn		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None	None	None	None	None	In Progress	In Progress	In Progress
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development							
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Required							
	Municipal Consent	Required							
	Special Road Permit	Required							
<ol> <li>The schedule for construction of the project and the progress made in the preceding quarter.</li> </ol>		Under Development							
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	678	678	678	678	678	678	678	678
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	38	38	38	38	38	38	38	38
Forecasted customer connections (10-year forecast).	Institutional Forecast	1	1	1	1	1	1	1	1
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	6	6	6	6	6	6	6	6
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
<ol> <li>The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*</li> </ol>		0	0	0	0	0	0	0	0

# Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-12, Attachment 1, Page 25 of 27

#### Natural Gas Expansion Program - Quarterly Report for NGEP Phase 2 Projects Submitted to Ministry of Energy pursuant to O. Reg. 451/21 under the Ontario Energy Board Act, 1998 Last Modified: December 18, 2023

26. St. Charles		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None							
<ol><li>The expected timeline for the filing of an application for leave to construct a hydrocarbon line under section 90 of the Act, if such an application is required.</li></ol>		Under Development	Q3 2023						
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required							
leave to construct referred to above.	Other	Not Required							
	Municipal Consent	Required							
	Special Road Permit	Not Required	Not Required	Required	Required	Required	Required	Required	Required
<ol><li>The schedule for construction of the project and the progress made in the preceding quarter.</li></ol>		Under Development							
<ol><li>Confirmation of the date on which the project is anticipated to come into service or the date on which the project came into service, as applicable.</li></ol>		Under Development							
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	143	143	143	143	143	143	143	143
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	17	17	17	17	17	17	17	17
Forecasted customer connections (10-year forecast).	Institutional Forecast	1	1	1	1	1	1	1	1
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	1	1	1	1	1	1	1	1
6b. The number of consumers in each of the following classes who have been connected.	Residential Actual	0	0	0	0	0	0	0	0
The number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection 4 (2) in respect of the project.*		0	0	0	0	0	0	0	0

## Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-12, Attachment 1, Page 26 of 27

#### Natural Gas Expansion Program - Quarterly Report for NGEP Phase 2 Projects Submitted to Ministry of Energy pursuant to O. Reg. 451/21 under the Ontario Energy Board Act, 1998 Last Modified: December 18, 2023

27. Ottawa		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
1. The status of any community consultations undertaken by the gas distributor in respect of		Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
the project.		complete	complete	compiete	complete	complete	complete	compiete	compiete
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		Net Applicable	Net Analischie	Net Acelieshie	Net Analischie	Net Analizable	Net trailertie	Net An elizable	Net Analisable
line under section 90 of the Act, if such an application is required.		Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
leave to construct referred to above.	Other	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
	Municipal Consent	Complete	Complete	Complete	Complete	Complete	Complete	Complete	Complete
	Special Road Permit	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
4. The schedule for construction of the project and the progress made in the preceding		Caba da la difere 02 2022	Construction Consulate	Construction Consolate	Construction	Construction	Construction	Construction	Construction Consolate
quarter.		Scheduled for Q2 2022	construction complete	construction complete	Complete	Complete	Complete	Complete	construction complete
5. Confirmation of the date on which the project is anticipated to come into service or the		03 3033	Convoluto	Convoluto	Consolution	Convoluto	Constate	Convoluto	Convoluto
date on which the project came into service, as applicable.		Q3 2022	Complete	complete	complete	complete	complete	complete	complete
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	10	10	10	10	10	10	10	10
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	0	0	0	0	0	0	0	0
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	0	0	0	0	0	0	0	0
	Industrial Forecast	1	1	1	1	1	1	1	1
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	11	11	11	11	11	11	11
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	1	1	1	1	1	1	1
7. The amounts in any variance accounts established by the gas distributor under subsection		-		-	-	-	-	-	-
4 (2) in respect of the project.*		U	U	U	U	U	U	U	U

## Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-12, Attachment 1, Page 27 of 27

#### Natural Gas Expansion Program - Quarterly Report for NGEP Phase 2 Projects Submitted to Ministry of Energy pursuant to O. Reg. 451/21 under the Ontario Energy Board Act, 1998 Last Modified: December 18, 2023

28. Tweed		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
<ol> <li>The status of any community consultations undertaken by the gas distributor in respect of the project.</li> </ol>		None							
2. The expected timeline for the filing of an application for leave to construct a hydrocarbon		Under Development	Q4 2024						
line under section 90 of the Act, if such an application is required.									
3. Progress updates on every necessary approval and permit for the project other than the	Environmental	Required	Required	кедиігеа	Required	Required	Required	Required	Required
leave to construct referred to above.	Other	Not Required	Required						
	Municipal Consent	Required							
	Special Road Permit - MTO	Not Required	Not Required	Required	Required	Required	Required	Required	Required
4. The schedule for construction of the project and the progress made in the preceding		Under Development	Calculation Co. 2020						
quarter.	0	onder bevelopment	under Development	under bevelopment	Under Development	onder bevelopment	Under Development	onder bevelopment	Scheduled for QZ 2025
5. Confirmation of the date on which the project is anticipated to come into service or the		Under Development	Under Development	Under Development	Under Brudenment	Under Brunkerment	Under Development	Under Development	Q4 2025
date on which the project came into service, as applicable.		Under Development	Under Development	Under Development	Under Development	onder bevelopment			
6a. The number of consumers in each of the following classes who are anticipated to be	Residential Forecast	54	54	54	54	54	54	54	86
connected to the gas distributor's natural gas distribution system as a result of the project.	Commercial Forecast	4	4	4	4	4	4	4	6
Forecasted customer connections (10-year forecast).	Institutional Forecast	0	0	0	0	0	0	0	0
	Agricultural Forecast	2	2	2	2	2	2	2	3
	Industrial Forecast	2	2	2	2	2	2	2	0
6b. The number of consumers in each of the following classes who have been connected. The	Residential Actual	0	0	0	0	0	0	0	0
number of services installed will be provided each quarter (totals are cumulative).	Commercial Actual	0	0	0	0	0	0	0	0
	Institutional Actual	0	0	0	0	0	0	0	0
	Agricultural Actual	0	0	0	0	0	0	0	0
	Industrial Actual	0	0	0	0	0	0	0	0
7. The amounts in any variance accounts established by the gas distributor under subsection		_	-						
4 (2) in respect of the project.*		U	U	0	0	0	0	0	0

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-13 Plus Attachment Page 1 of 1

# ENBRIDGE GAS INC.

### Answer to Interrogatory from Environmental Defence (ED)

### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Page 1

### Question(s):

- a) Please provide a table with a full reconciliation as between the estimated project costs in Table 1 and the amount estimated in the Company's original project proposal to the Government of Ontario (2019/2020) for funding under Phase 2 of the NGEP (EB-2019-0255).
- b) Please provide the complete copy of the above-referenced project proposal.
- c) Please provide the 40-year DCF table underling the project proposal to the Government of Ontario (2019/2020) for funding under Phase 2 of the NGEP (EB-2019-0255).

### Response:

- a) Please see response at Exhibit I.STAFF-7 part a).
- b) Please see response at Exhibit I.STAFF-3, Attachment 1.
- c) Please see Attachment 1.

#### Eganville

Project Year (\$000's)	Project Total	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Operating Cash Flow										
Revenue:										
SES Revenue	20,217	42	186	338	413	460	505	550	595	628
Distribution Revenue	13,708	33	129	219	258	285	308	331	354	374
Expenses:										
O & M Expense	(2,079)	(6)	(20)	(32)	(38)	(41)	(45)	(48)	(51)	(54)
Municipal Tax	(5,821)	(131)	(136)	(139)	(140)	(141)	(142)	(144)	(145)	(146)
Income Tax	(6,811)	102	(42)	(102)	(131)	(149)	(166)	(183)	(200)	(212)
Net Operating Cash Flow	19,213	40	117	284	363	413	461	507	554	589
Capital										
Incremental Capital	(10,588)	(6,474)	(1,459)	(546)	(355)	(287)	(316)	(282)	(326)	(277)
Change in Working Capital	2	0.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Capital	(10,586)	(6,474)	(1,459)	(546)	(354)	(287)	(316)	(282)	(326)	(277)
CCA Tax Shield										
CCA Tax Shield	2,608	147	112	114	113	111	107	105	103	102
Net Present Value										
PV of Operating Cash Flow	8,418	39	109	252	308	335	356	374	389	395
PV of Capital	(9,888)	(6,474)	(1,359)	(485)	(301)	(232)	(244)	(208)	(229)	(186)
PV of CCA Tax Shield	1,470	143	105	101	96	90	82	77	73	68
Total NPV	0	(6,291)	(1,146)	(132)	103	192	194	243	233	278
Project NPV	0									
Profitability Index										
Cumulative PI		0.03	0.05	0.09	0.13	0.18	0.22	0.27	0.31	0.35
Project Pl	1.00									

#### Eganville

Project Year (\$000	<u>l's)</u> <u>Proj</u>	iect Total	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>
Operating Cash Flow											
Revenue:											
SES Revenue		20,217	646	655	655	655	655	655	655	655	655
Distribution Revenue	9	13,708	389	396	396	396	396	396	396	396	396
Expenses:											
O & M Expense		(2,079)	(56)	(57)	(57)	(57)	(57)	(57)	(57)	(57)	(57)
Municipal Tax		(5,821)	(147)	(147)	(147)	(147)	(147)	(147)	(147)	(147)	(147)
Income Tax		(6,811)	(220)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)
Net Operating Cash Flo	w	19,213	611	622	622	622	622	622	622	622	622
Capital											
Incremental Capital		(10,588)	(265)	-	-	-	-	-	-	-	-
Change in Working Cap	bital	2	0.1	-	-	-	-	-	-	-	-
Total Capital		(10,586)	(265)	-	-	-	-	-	-	-	-
CCA Tax Shield											
CCA Tax Shield		2,608	100	96	91	85	80	75	71	66	62
Net Present Value											
PV of Operating Cash F	low	8,418	391	380	362	346	330	315	300	287	273
PV of Capital		(9,888)	(170)	-	-	-	-	-	-	-	-
PV of CCA Tax Shield		1,470	64	59	53	47	42	38	34	31	27
Total NPV		0	285	439	415	393	372	353	335	317	301
Project NPV		0									
		-									
Profitability Index											
Cumulative PI			0.39	0.43	0.48	0.52	0.55	0.59	0.62	0.65	0.68
Project PI		1.00									

#### Eganville

Project Year (\$000's)	Project Total	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>
Operating Cash Flow										
Revenue:										
SES Revenue	20,217	655	655	655	619	561	526	503	480	457
Distribution Revenue	13,708	396	396	396	388	374	367	362	357	352
Expenses:										
O & M Expense	(2,079)	(57)	(57)	(57)	(57)	(56)	(56)	(56)	(56)	(56)
Municipal Tax	(5,821)	(147)	(147)	(147)	(147)	(147)	(147)	(147)	(147)	(147)
Income Tax	(6,811)	(224)	(224)	(224)	(213)	(194)	(183)	(175)	(168)	(161)
Net Operating Cash Flow	19,213	622	622	622	590	537	507	486	466	445
Capital										
Incremental Capital	(10,588)	-	-	-	-	-	-	-	-	-
Change in Working Capital	2	-	-	-	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Total Capital	(10,586)	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)
CCA Tax Shield										
CCA Tax Shield	2,608	59	55	52	49	46	43	41	38	36
Net Present Value										
PV of Operating Cash Flow	8,418	261	249	237	215	187	168	154	141	128
PV of Capital	(9,888)	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)
PV of CCA Tax Shield	1,470	25	22	20	18	16	14	13	11	10
Total NPV	0	286	271	257	233	203	182	167	152	139
Project NPV	0									
<u>,</u>										
Profitability Index										
Cumulative PI		0.71	0.74	0.77	0.79	0.81	0.83	0.85	0.86	0.88
Project PI	1.00									

#### Eganville

Project Year	(\$000's)	Project Total	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	<u>32</u>	<u>33</u>	<u>34</u>	<u>35</u>	<u>36</u>
Operating Cash	Flow										
Revenue:											
SES Revenu	le	20,217	434	423	423	423	423	423	423	423	423
Distribution	Revenue	13,708	346	344	344	344	344	344	344	344	344
Expenses:											
O & M Expe	nse	(2,079)	(56)	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(55)
Municipal T	ax	(5,821)	(147)	(147)	(147)	(147)	(147)	(147)	(147)	(147)	(147)
Income Tax		(6,811)	(153)	(149)	(149)	(149)	(149)	(149)	(149)	(149)	(149)
Net Operating	Cash Flow	19,213	425	415	415	415	415	415	415	415	415
Capital											
Incremental Ca	apital	(10,588)	-	-	-	-	-	-	-	-	-
Change in Wor	king Capital	2	(0.0)	-	-	-	-	-	-	-	-
Total Capital		(10,586)	(0)	-	-	-	-	-	-	-	-
CCA Tax Shield											
CCA Tax Shield		2,608	34	32	30	28	26	25	23	22	21
Net Present Val	ue										
PV of Operatin	g Cash Flow	8,418	117	109	104	99	94	90	86	82	78
PV of Capital		(9,888)	(0)	-	-	-	-	-	-	-	-
PV of CCA Tax	Shield	1,470	9	8	7	7	6	5	5	4	4
Total NPV		0	126	117	111	106	100	95	91	86	82
Project NPV		U									
Profitability Inde	ex										
Cumulative PI			0.89	0.90	0.91	0.92	0.93	0.94	0.95	0.96	0.97
Project PI		1.00									

#### Eganville

Project PI

In-service Date: Nov-01-2023

Project Year (\$000's)	Project Total	<u>37</u>	<u>38</u>	<u>39</u>	<u>40</u>
Operating Cash Flow					
Bevenue:					
SES Revenue	20.217	423	423	423	423
	13 708	344	344	344	344
Expenses:	,	011	011	011	011
O & M Expense	(2,079)	(55)	(55)	(55)	(55)
Municipal Tax	(5.821)	(147)	(147)	(147)	(147)
Income Tax	(6.811)	(149)	(149)	(149)	(149)
Net Operating Cash Flow	19,213	415	415	415	415
1 0					
Capital					
Incremental Capital	(10,588)	-	-	-	-
Change in Working Capital	2	-	-	-	-
Total Capital	(10,586)	-	-	-	-
CCA Tax Shield					
CCA Tax Shield	2,608	19	18	17	155
Net Present Value					
PV of Operating Cash Flow	8,418	75	71	68	65
PV of Capital	(9,888)	-	-	-	-
PV of CCA Tax Shield	1,470	3	3	3	24
Total NPV	0	78	74	71	89
Project NPV	0				
Profitability Index					
Cumulative PI		0.98	0.98	0.99	1.00

1.00

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-14 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Page 1

# Question(s):

- a) Please provide Enbridge's definition of "ancillary costs" as that term is used in Table 1. Please provide a full explanation.
- b) Please compare the concept of "ancillary costs" with allocated overhead, including a reconciliation of the concepts in a table if there is partial overlap.

### Response:

a) Generally, ancillary costs include all project costs not directly related to the pipeline facilities that require an order of the OEB granting leave to construct. Ancillary costs include but are not limited to the construction of facilities for individual customer services and stations (e.g., pressure regulation, measurement, odorization).

In the case of the proposed Project, the facilities associated with ancillary costs include:

- Approximately 21 km of natural gas distribution mains (contractor labour and construction);
- A pressure reducing station; and (contractor labour and construction); and
- Customer services (contractor labour, construction, and meter/regulator installation).<sup>1</sup>
- b) There is no correlation between ancillary costs and overheads. Ancillary costs refer to natural gas asset types whereas project overheads account for the labour cost associated with full time employees and contingent workers supporting the project.

<sup>&</sup>lt;sup>1</sup> Exhibit D, Tab 1, Schedule 1, p. 1.
Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-15 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Page 1

## Question(s):

 a) Please provide a table of figures showing, without rounding: the gross capital cost, the gross O&M costs over 40 years, the NPV of the O&M costs over 40 years, the subsidy, the gross revenue over 40 years, and the NPV of the revenue over 40 years

#### Response:

 a) As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. Please see Table 1, which includes the update.

> Table 1 Econyille Community Expansion Project Costs and Revenue

Eganville Community	/ Expansion Pro	ject Costs and Revenue
	-	

Gross Capital Costs	\$35,509,622
Gross O&M Over 40 Years	\$2,254,466
NPV of O&M Over 40 Years	\$864,081
Subsidy	\$26,169,413
Gross Revenue (including SES) Over 40 Years	\$32,892,918
NPV of Revenue (including SES) Over 40 Years	\$12,642,595

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-16 Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

# Reference:

Exhibit E, Tab 1, Schedule 1, Page 1

# <u>Question(s)</u>:

# a) Please complete the following table:

Capital Costs Per Customer					
Forecast gas customers (total)					
Total capital costs					
Capital costs per customer					

## b) Please complete the following table:

Capital and Operating Costs Per Customer	
Forecast gas customers (total)	
Total capital costs and gross O&M costs over 40	
years	
Capital and O&M costs per customer	

# c) Please complete the following table:

Capital and Operating Costs Per Customer (Excl. Costs Covered by the Subsidy)				
Forecast gas customers (total)				
Total capital costs and gross O&M costs minus the				
subsidy from existing customers				
Capital and O&M costs per customer (excl.				
subsidy)				

## d) Please complete the following table:

NGEP Subsidy from Existing Customers				
Forecast gas customers (total)				
NGEP subsidy				
NGEP subsidy per customer				

#### Response:

As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. The tables below are based on said update.

a) Please see Table 1 below.

Table 1: Capital Costs Per Customer					
Forecast gas customers (total)	723				
Total capital costs	\$35,509,622				
Capital costs per customer	\$49,114				

b) Please see Table 2 below.

Table 2: Capital and Operating Costs Per Customer				
Forecast gas customers (total)	723			
Total capital costs and gross O&M costs over 40	\$37,764,088			
years				
Capital and O&M costs per customer	\$52,232			

# c) Please see Table 3 below.

Table 3: Capital and Operating Costs Per Customer (Excl. Costs Covered by the Subsidy)				
Forecast gas customers (total)	723			
Total capital costs and gross O&M costs minus the subsidy from existing customers	\$11,594,675			
Capital and O&M costs per customer (excl. subsidy)	\$16,037			

# d) Please see Table 4 below.

Table 4: NGEP Subsidy from Existing Customers					
Forecast gas customers (total)	723				
NGEP subsidy	\$26,169,413				
NGEP subsidy per customer	\$36,196				

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-17 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 1

Question(s):

- a) If there are significant revenue shortfalls or cost overruns in years 1 though 10 that Enbridge is unable to recoup from increasing the system expansion surcharge, does Enbridge undertake not to seek to recoup the amounts from existing Enbridge customers?
- b) If there are significant revenue shortfalls or cost overruns in years 11 though 40 that Enbridge is unable to recoup from increasing the system expansion surcharge, does Enbridge undertake not to seek to recoup the amounts from existing Enbridge customers?

#### Response:

#### a - b)

Consistent with the direction in the OEB's EB-2020-0094 Decision,<sup>1</sup> upon placing the Project into service, Enbridge Gas will apply a 10-year rate stability period (RSP) during which the Company will bear the risk of the Project customer attachment and capital expenditure forecast vs. actuals. Enbridge Gas will file the actual costs and revenues of the Project with the OEB for consideration of inclusion in rates in the rebasing application following the conclusion of the RSP. The OEB has also determined that it will consider any questions about the treatment of any revenue surplus or shortfall beyond the RSP at that same time.<sup>2</sup> For these reasons, it is premature and unnecessary for the Company to make any further commitments with regard to cost recovery at this time.

<sup>2</sup> EB-2019-0188, Decision and Order, May 7, 2020: pp. 12-13; EB-2022-0156, Decision and Order, September 21, 2023, pp. 20-21; EB-2022-0248, Decision and Order, September 21, 2023, p. 20; EB-2022-0249, Decision and Order, September 21, 2023, pp. 19-20.

<sup>&</sup>lt;sup>1</sup> EB-2020-0094, Decision and Order, November 5, 2020, pp. 8-9.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-18 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

# Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 1

# Question(s):

- a) Please reproduce the DCF table with an illustrative scenario where customer attachments each year are 50% of those forecast. Enbridge does not need to agree this scenario is likely it is intended to illustrate the cost impacts.
- b) With respect to the response to (a), please provide (i) the revenue deficiency over the first 10 years (both gross and NPV) and the (ii) the revenue deficiency over the remaining 30 years (both gross and NPV).

# Response:

# a - b)

The Company respectfully declines to provide the requested information. The attachment scenario suggested by ED is arbitrary and has no basis and can likely only be used to draw oversimplified conclusions, as any adjustments made to the attachment forecast would result in other Project components/scope being re-assessed/adjusted accordingly. The Company cautions against drawing conclusions based on selective modifications to components of the proposed Project, such as attachment forecasts, without consideration of all Project components in a holistic manner.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-19 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

Question(s):

a) Please complete the following table showing the outcomes in various scenarios in terms of the profitability index, NPV, and gross revenue deficiency. Enbridge does not need to agree these scenarios are likely.

Cost Impact of Different Customer Attachment / Revenue Scenarios									
	Profitability index	NPV	Revenue deficiency (years 1-10)	Revenue deficiency (years 1-40)					
Volumes plateau in year 5 and									
After year 10, 10 customers exit									
the system each year (net)									
Volumes are 20% less than forecast each year									

b) Please provide all analysis that Enbridge completed on the possibility that customers connect the new pipeline but later leave before the end of the 40-year revenue horizon. Please include estimates of the number and percentage of customers that are likely to do so and all underlying figures.

#### Response:

- a) The Company respectfully declines to provide the requested information. The scenarios suggested by ED are arbitrary and have no basis and can likely only be used to draw oversimplified conclusions, as any adjustments made to parameters like the attachment forecast would result in other Project components/scope being re-assessed/adjusted accordingly. The Company cautions against drawing conclusions based on selective modifications to components of the proposed Project, such as attachment forecasts, without consideration of all Project components in a holistic manner.
- b) The Company did not perform any such analysis.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-20 Plus Attachment Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

## Question(s):

- a) Please provide a full breakdown of the incremental capital costs shown in the DCF table, including a breakdown showing the connection costs included in the incremental capital.
- b) Please explain how the incremental capital figures in the DCF table were determined and provide all underlying figures and assumptions.
- c) Please indicate which of the following costs are included in the incremental capital costs shown in the DCF table:
  - i) The full cost of service lines, meters, regulators, and other capital needed to connect additional conversion customers (i.e. infills);
  - The cost of service lines, meters, regulators, and other capital needed to connect additional conversion customers (i.e. infills), minus the extra length charges (ELC) that will be required by infill customers;
  - iii) The full cost of mains that are required in new developments that form part of the connection/revenue forecast;
  - iv) The full cost of mains that are required in new developments that form part of the connection/revenue forecast, minus contributions in aid of construction that will be required by developers;
  - v) Incremental overheads; and
  - vi) Normalized system reinforcement costs.

#### Response:

a) Please see Attachment 1 for the full breakdown of the incremental capital cost.

b) Please see Attachment 1. The incremental capital cost as presented in the DCF analysis at the update to Exhibit E, Tab 1, Schedule 1, Attachment 2 filed on January 12, 2024 is calculated by reducing the forecast of capital cost of the Project (approximately \$35.5 million) by NGEP funding (approximately \$26.2 million). The awarded NGEP funding offsets the overall cost of the Project, resulting in a net capital cost of \$9.3 million.

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c)
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- i) Included.
- ii) Included.
- iii) Not applicable. No new developments have been identified within the Project area.
- iv) Not applicable. No new developments have been identified within the Project area.
- v) Included. Incremental overheads are included at 5% of the gross cost for each asset type and have been presented separately for each facility type in Attachment 1 to this response.
- vi) Not Included. Normalized reinforcement costs are not applicable to community expansion projects.

# Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-20, Attachment 1, Page 1 of 1

#### Table 1 Capital Expenditure

	Capital Expenditure											
Line No.		Total	2021-2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Pipeline Phase 1	\$6,713,904	\$6,713,904	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Pipeline Phase 1_Incremental overheads	\$335,695	\$335,695	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Pipeline Phase 2	\$5,389,106	\$5,389,106	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Pipeline Phase 2_Incremental overheads	\$269,455	\$269,455	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Ancillary Facilities_Distribution Mains Phase 3	\$7,145,310	\$6,790,166	\$355,145	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Ancillary Facilities_Distribution Mains Phase 3_Incremental overheads	\$357,266	\$339,508	\$17,757	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Ancillary Facilities_Distribution Mains Phase 4	\$7,743,741	\$6,983,590	\$760,151	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Ancillary Facilities_Distribution Mains Phase 4_Incremental overheads	\$387,187	\$349,179	\$38,008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Ancillary Facilities_Distribution Station	\$367,802	\$367,802	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Ancillary Facilities_Distribution Station_Incremental overheads	\$18,390	\$18,390	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Ancillary Facilities_Customer Services	\$6,458,825	\$498,234	\$1,462,609	\$1,229,380	\$798,329	\$755,734	\$344,725	\$328,322	\$341,127	\$354,430	\$345,935
12	Ancillary Facilities_Customer Services_Incremental overheads	\$322,941	\$24,912	\$73,130	\$61,469	\$39,916	\$37,787	\$17,236	\$16,416	\$17,056	\$17,722	\$17,297
13	Gross Capital Costs	\$35,509,622	\$28,079,941	\$2,706,800	\$1,290,849	\$838,245	\$793,520	\$361,961	\$344,738	\$358,183	\$372,152	\$363,232
14	NGEP Funding	(\$26,169,413)	(\$22,600,000)	(\$2,700,000)	(\$869,413)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15	Net Capital Costs	\$9,340,209	\$5,479,941	\$6,800	\$421,436	\$838,245	\$793,520	\$361,961	\$344,738	\$358,183	\$372,152	\$363,232

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-21 Plus Attachment Page 1 of 3

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

## Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

#### Preamble:

These questions relate to the costs of individual customer attachments (i.e. dedicated service line and meter), the portion of those costs that will be borne via up-front payments by customers considering a switch to gas, and how this might impact the number of attachments as customers consider gas versus heat pumps.

#### Question(s):

- a) Please confirm that the Extra Length Charge applies in community expansion areas. If not, please explain, including an explanation as to when that changed, why that changed, and whether approval was sought from the OEB for that change.
- b) Please provide the details of the existing Extra Length Charge.
- c) Please confirm that the existing Extra Length Charge is insufficient to meet the 40year revenue horizon maximum in EBO 188.
- d) What Extra Length Charge is Enbridge proposing to institute in 2024 in its current rates case?
- e) Please confirm how many intervenors in Enbridge's rates case have requested in their submissions (i) a higher Extra Length Charge than proposed by Enbridge and (ii) a lower extra length charge than proposed by Enbridge.
- f) Please provide a rough estimate of the Extra Length Charge that would be applicable to the buildings in the project area on average, at the high end, and at the low end.
- g) Please provide a table showing, for all the buildings in the project area, the approximate length of service line that will be required. If Enbridge does not have that information, please obtain it on an approximate basis using mapping tools. The list does not need to use addresses. Please use simplifying assumptions if Enbridge wishes to do so (e.g. that the service line will run in a straight line from the edge of

the shoulder to the nearest point on the house). [Note that this should not be onerous, and Environmental Defence would complete the task if it was permitted to submit evidence. We tested this task with Google Maps, and we were able to record measurements of approximately 5 buildings per minute.]

- h) Please add to the table from (g): the approximate Extra Length Charge that would apply for that building (pre-tax) and the total including tax (if tax is applied), for the existing ELC and the proposed ELC.
- i) Please explain how Enbridge determines the length for the purpose of calculating the Extra Length Charge. For instance, is the length measured from the actual gas main, or from some other point (e.g. the edge of the road or the edge of the shoulder)? For customers on the opposite side of the road as the main, do they or Enbridge cover the incremental costs of getting the service line underneath the road?

# Response:

- a) Confirmed.
- b) and d e)

The OEB decision on the ELC in EB-2022-0200 states:

The OEB approves the proposed ELC of \$159 per metre beyond the first 20 meters for use in 2024.  $^{\rm 1}$ 

With the recent OEB decision on the ELC, Enbridge Gas finds ED's question regarding the number of intervenors with submissions regarding the ELC to no longer be relevant.

c) Enbridge Gas interprets the interrogatory to be asking whether the existing ELC described in part b) above will be insufficient to ensure a Project Profitability Index (PI) of 1.0. Not confirmed. The Project's PI has a PI of 1.0 and that figure is provided within the update to the DCF analysis filed on January 12, 2024 at Exhibit E, Tab 1, Schedule 1, Attachment 2.

# f) – h)

Please see Attachment 1 to this response for the requested table. The table provides the following estimates for each building that Enbridge Gas could reasonably assess within the Project area, using information provided by Google Maps:

<sup>&</sup>lt;sup>1</sup> EB-2022-0200, Decision and Order, December 21, 2023, p. 50.

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- Distance from property line to building line (m)
- Excess length over 20 m (m)
- Pre-tax ELC (\$)
- After-tax ELC (\$)

Please see the following for information, assumptions, and caveats regarding the analysis:

- The analysis was conducted using information provided by Google Maps and should be considered illustrative estimates and not precise information.
- Measurements were taken as a straight line from the property line to the front of the building.
- Property lines were assumed. Where possible, a landmark was used as a reference point (e.g., hydro poll, telecommunications box, or other relevant object).
- Vacant lots were excluded from the total population.
- Commercial lots were excluded as assumed to be "no cost".

The analysis was conducted using the existing ELC policy described in part b) above.

Approximately 83% of buildings included within the analysis were 20 m or less from the property line and therefore would not incur an ELC. The lowest ELC is \$0 (83% of buildings). The average after-tax ELC is \$7426.13 for the properties requiring ELC. The highest after-tax ELC in the Project area are \$56,955, \$47,612 and \$47,073.

i) The length of the service for the purpose of ELC is measured from the customer's property line to the location where the gas meter is installed. This rule is designed to treat all customers fairly and customers have no advantage or disadvantage if the main line is on their side or the opposite side of the road.

Home Owner	Distance (Property Line to BL )	Excess length (Over 20 M )	Cost (159\$/M)	HS	ST2	Tot	al2
32	25	5	\$ 795.00	\$	103.35	\$	898.35
47	22	2	\$ 318.00	\$	41.34	\$	359.34
52	27	7	\$ 1,113.00	\$	144.69	\$	1,257.69
54	90	70	\$ 11,130.00	\$	1,446.90	\$	12,576.90
57	115	95	\$ 15,105.00	\$	1,963.65	\$	17,068.65
61	26	6	\$ 954.00	Ś	124.02	Ś	1.078.02
70	34	14	\$ 2,226,00	Ś	289.38	Ś	2 515 38
76	57	37	\$ 5,883,00	Ś	764.79	Ś	6 647 79
87	25	5	\$ 795.00	¢	103 35	¢	898 35
89		40	\$ 6360.00	ې د	826.80	ç	7 186 80
80	110	40	\$ 0,300.00 \$ 14,210.00	ې خ	1 860 30	ې خ	16 170 20
90	21.5		\$ 1,310.00	ې خ	1,800.30	ې خ	2,066,21
99	51.5	11.5	\$ 1,828.50	ې د	237.71	ې د	2,066.21
100	51	31	\$ 4,929.00	Ş	640.77	Ş	5,569.77
103	34	14	\$ 2,226.00	Ş	289.38	\$	2,515.38
105	38	18	\$ 2,862.00	\$	372.06	\$	3,234.06
11/	21	1	\$ 159.00	\$	20.67	Ş	179.67
121	21	1	\$ 159.00	Ş	20.67	Ş	179.67
127	31	11	\$ 1,749.00	Ş	227.37	Ş	1,976.37
130	21	1	\$ 159.00	\$	20.67	\$	179.67
131	143	123	\$ 19,557.00	\$	2,542.41	\$	22,099.41
194	39	19	\$ 3,021.00	\$	392.73	\$	3,413.73
200	21	1	\$ 159.00	\$	20.67	\$	179.67
204	30	10	\$ 1,590.00	\$	206.70	\$	1,796.70
230	21	1	\$ 159.00	\$	20.67	\$	179.67
237	21.5	1.5	\$ 238.50	\$	31.01	\$	269.51
238	42	22	\$ 3,498.00	\$	454.74	\$	3,952.74
245	22	2	\$ 318.00	\$	41.34	\$	359.34
246	31	11	\$ 1,749.00	\$	227.37	\$	1,976.37
247	20.5	0.5	\$ 79.50	\$	10.34	\$	89.84
248	282	262	\$ 41,658.00	\$	5,415.54	\$	47,073.54
252	38	18	\$ 2,862.00	\$	372.06	\$	3,234.06
253	220	200	\$ 31.800.00	Ś	4.134.00	Ś	35.934.00
256	37	17	\$ 2,703.00	\$	351.39	\$	3,054.39
257	61	41	\$ 6.519.00	Ś	847.47	Ś	7.366.47
258	276	256	\$ 40.704.00	Ś	5.291.52	Ś	45.995.52
259	27.5	7.5	\$ 1.192.50	Ś	155.03	Ś	1.347.53
261	50	30	\$ 4,770.00	Ś	620.10	Ś	5.390.10
262	36	16	\$ 2,544,00	Ś	330.72	Ś	2.874.72
266	337	317	\$ 50.403.00	Ś	6.552.39	Ś	56.955.39
267	285	265	\$ 42,135,00	Ś	5 477 55	Ś	47 612 55
269	146	126	\$ 20,034,00	Ś	2 604 42	Ś	22 638 42
203	34	14	\$ 2,226,00	¢	289.38	¢	2 515 38
271	46	26	\$ 4,134,00	¢	527.42	¢	4 671 42
202		20	\$ 636.00	ب د	82.68	ç	718 68
200	126	116	¢ 19.444.00	ې خ	2 207 72	¢	20 941 72
310	130	110	¢ 10,444.00	ې د	2,337.72 E1.60	ې خ	440.10
323	22.5	2.5	¢ E 000 00	ې د	661.44	ڊ ۲	5 7/0 //
331	52	32	, 3,088.00	¢ ¢	1 960 20	ې د	16 170 20
332	110	90	÷ 14,310.00	ې د	1,000.30	ې د	10,170.30
333	43	23	>         3,657.00           \$         1,272.00	Ş	4/5.41	Ş	4,132.41
334	28	8	\$ 1,272.00	\$	165.36	\$	1,437.36
335	130	110	\$ 17,490.00	Ş	2,2/3./0	Ş	19,763.70
340	23	3	\$ 477.00	Ş	62.01	Ş	539.01
342	22	2	\$ 318.00	Ş	41.34	Ş	359.34
343	22	2	\$ 318.00	\$	41.34	\$	359.34
350	22	2	\$ 318.00	\$	41.34	Ş	359.34
351	22	2	\$ 318.00	\$	41.34	\$	359.34
353	45	25	\$ 3,975.00	\$	516.75	\$	4,491.75
355	21	1	\$ 159.00	\$	20.67	\$	179.67
356	166	146	\$ 23,214.00	\$	3,017.82	\$	26,231.82
358	81	61	\$ 9,699.00	\$	1,260.87	\$	10,959.87
367	22	2	\$ 318.00	\$	41.34	\$	359.34
370	21	1	\$ 159.00	\$	20.67	\$	179.67
371	256.5	236.5	\$ 37,603.50	\$	4,888.46	\$	42,491.96
373	21	1	\$ 159.00	\$	20.67	\$	179.67
377	27	7	\$ 1,113.00	\$	144.69	\$	1,257.69

Home Owner	Distance (Property Line to BL )	Excess length (Over 20 M )	Cost (159\$/M)	HST2	Total2
387	22	2	\$ 318.00	\$ 41.34	\$ 359.34
388	22	2	\$ 318.00	\$ 41.34	\$ 359.34
390	107	87	\$ 13,833.00	\$ 1,798.29	\$ 15,631.29
487	23	3	\$ 477.00	\$ 62.01	\$ 539.01
491	41	21	\$ 3,339.00	\$ 434.07	\$ 3,773.07
520	31	11	\$ 1,749.00	\$ 227.37	\$ 1,976.37
521	30	10	\$ 1,590.00	\$ 206.70	\$ 1,796.70
525	26.5	6.5	\$ 1,033.50	\$ 134.36	\$ 1,167.86
527	22	2	\$ 318.00	\$ 41.34	\$ 359.34
529	27	7	\$ 1,113.00	\$ 144.69	\$ 1,257.69
531	235	215	\$ 34,185.00	\$ 4,444.05	\$ 38,629.05
532	38	18	\$ 2,862.00	\$ 372.06	\$ 3,234.06
533	44	24	\$ 3,816.00	\$ 496.08	\$ 4,312.08
534	37.5	17.5	\$ 2,782.50	\$ 361.73	\$ 3,144.23
535	43	23	\$ 3,657.00	\$ 475.41	\$ 4,132.41
536	104	84	\$ 13,356.00	\$ 1,736.28	\$ 15,092.28
537	60	40	\$ 6,360.00	\$ 826.80	\$ 7,186.80
538	21	1	\$ 159.00	\$ 20.67	\$ 179.67
540	142	122	\$ 19,398.00	\$ 2,521.74	\$ 21,919.74
541	65	45	\$ 7,155.00	\$ 930.15	\$ 8,085.15
543	32	12	\$ 1,908.00	\$ 248.04	\$ 2,156.04
544	30.5	10.5	\$ 1,669.50	\$ 217.04	\$ 1,886.54
5/6	62	/2	\$ 6.678.00	\$ 868.14	\$ 7.546.14
553	21	42	\$ 0,078.00 \$ 159.00	\$ 20.67	\$ 179.67
555	24	1	\$ 636.00	\$ 20.07	\$ 718.68
554	24	4	\$ 050.00	\$ 124.02	\$ 1.079.02
558	20	17	\$ 954.00 \$ 2,703.00	\$ 124.02	\$ 1,078.02
558	24	14	¢ 2,703.00	\$ 331.33	\$ 3,034.39
500	34	14	\$ 2,220.00	\$ 203.30	\$ 2,313.30
570		19	\$ 3,021.00	\$ 392.73	\$ 5,415.75
5/3	20	45	\$ 7,155.00	\$ 930.15	\$ 8,085.15
574	207	247	\$ 39,273.00	\$ 5,105.49	\$ 44,378.49
575	58	18	\$ 2,802.00	\$ 372.00	\$ 5,234.00
570		35	\$ 5,505.00	\$ 723.45	\$ 0,288.45
5//	62	42	\$ 6,678.00	\$ 868.14	\$ 7,546.14
578	192	1/2	\$ 27,348.00	\$ 3,555.24	\$ 30,903.24
579	33	13	\$ 2,067.00	\$ 268.71	\$ 2,335.71
581	60	40	\$ 6,360.00	\$ 826.80	\$ 7,186.80
583	41	21	\$ 3,339.00	\$ 434.07	\$ 3,773.07
584	29	9	\$ 1,431.00	\$ 186.03	\$ 1,617.03
585	60	40	\$ 6,360.00	\$ 826.80	\$ 7,186.80
586	1/1	151	\$ 24,009.00	\$ 3,121.17	\$ 27,130.17
587	82	62	\$ 9,858.00	\$ 1,281.54	\$ 11,139.54
588	224	204	\$ 32,436.00	\$ 4,216.68	\$ 36,652.68
589	4/	27	\$ 4,293.00	\$ 558.09	\$ 4,851.09
590	30	10	\$ 1,590.00	\$ 206.70	\$ 1,796.70
603	21	1	\$ 159.00	\$ 20.67	\$ 1/9.6/
614	22	2	\$ 318.00	> 41.34	\$ 359.34
628	28	8	\$ 1,272.00	\$ 165.36	\$ 1,437.36
635	22	2	\$ 318.00	> 41.34	\$ 359.34
639	33	13	\$ 2,067.00	\$ 268.71	\$ 2,335./1
640	23	3	\$ 4/7.00	\$ 62.01	\$ 539.01
641	30	10	\$ 1,590.00	\$ 206.70	\$ 1,796.70
642	27	7	\$ 1,113.00	\$ 144.69	\$ 1,257.69
651	35	15	\$ 2,385.00	\$ 310.05	\$ 2,695.05
715	28	8	\$ 1,272.00	> 165.36	\$ 1,437.36
718	36	16	\$ 2,544.00	\$ 330.72	\$ 2,874.72
725	34	14	\$ 2,226.00	\$ 289.38	\$ 2,515.38
726	41	21	\$ 3,339.00	\$ 434.07	\$ 3,773.07
730	31	11	\$ 1,749.00	\$ 227.37	\$ 1,976.37
735	25	5	\$ 795.00	\$ 103.35	\$ 898.35
775	30	10	\$ 1,590.00	\$ 206.70	\$ 1,796.70
776	32	12	\$ 1,908.00	\$ 248.04	\$ 2,156.04
783	27	7	\$ 1,113.00	\$ 144.69	\$ 1,257.69
	Total Combined Values	5290.5	\$ 841,189.50	\$109,354.64	\$950,544.14
	Average Excess Footage beyond 20m	41.3	\$ 6,571.79	\$854.33	\$7,426.13

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-22 Plus Attachment Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

#### Preamble:

EBO 188 Appendix B Guidelines state:

## 2. STANDARD TEST FOR FINANCIAL FEASIBILITY

The standard test for determining the financial feasibility at both the project and the portfolio level will be a DCF analysis, as set out below.

#### 2.1 DCF Calculation and Common Elements

For capital costs, the common elements will be as follows:

- a) an estimate of all costs directly associated with the attachment of the forecast customer additions, including costs of distribution mains, services, customer stations, distribution stations, land and land rights;
- b) an estimate of incremental overheads applicable to distribution expansion at the portfolio level; and
- c) an estimate of the normalized system reinforcement costs.

#### Question(s):

- a) Please provide a table showing for each year and as a total: (i) the incremental overheads and (ii) the normalized system reinforcement costs.
- b) Please reproduce the DCF table with rows breaking out the incremental capital costs as between direct costs, incremental overheads, and normalized system reinforcement costs. If any of those costs are not included, please reproduce the DCF table including those costs.

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- c) If Enbridge did not include normalized system reinforcement cost, please fully explain why that is justified. Please refer to and attach and supporting documents.
- d) Please provide maps showing the upstream pipelines in Ontario that feed the pipelines in the project area.

## Response:

a - c)

Please see the response at Exhibit I.ED-20 including Attachment 1. Normalized system reinforcement costs (NSRC) are not applicable to community expansion projects and all reinforcement costs associated with the Project are directly applied in the DCF analysis for the Project. The cost of reinforcement required for community expansion projects are separate to, and not included within, calculations of NSRC. Therefore, it would not be appropriate to apply NSRC.

d) The Project will tie into the existing Nominal Pipe Size (NPS) 8 Extra High pressure (XHP) steel Enbridge Gas system on Snake River Line at McGuinty Road. The pipeline will extend west along McGuinty Road, Micksburg Road, McGaghran Road, Bulger Road, Cold Creek Road, and Letts Cemetery Road into the community of Eganville. Attachment 1 to this response displays the upstream pipelines that feed the proposed Project. The Project ties into the existing XHP Distribution System along Hwy 17/Snake River Line which is fed by the Petawawa Gate Station to the North, and Haley Gate station to the South. This network is also fed at the Southernmost extent by Brockville Gate station. These stations are ultimately fed by TCE.



# Eganville Community Expansion Project



ÉNBRIDGE Life Takes Energy

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-23 Page 1 of 4

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

## Question(s):

- a) For this project, what is the forecast average all-in cost to connect a new residential customer to the gas system, including the cost of the meter, regulator, the pipe serving that specific customer, and the installation costs? Please differentiate between conversions and new build customers if possible.
- b) Please provide a table showing, for each year, the forecast customer attachments, the estimated average cost to attach a customer (e.g., the meter, the pipe serving that customer only, labour, etc.), the estimated cost that will be covered by rates, and the estimated cost that will be covered by the customers directly.
- c) Please reproduce the DCF table with a row showing the customer attachment costs (i.e., the meter, the pipe serving that customer only, labour, etc.) for each year broken out from other costs. If those costs are not included, please reproduce the DCF table including those costs.
- d) What are the average incremental operational costs for Enbridge per average residential customer (e.g., billing, etc.). Please provide a breakdown of these costs.
- e) Are the costs in (c) included in the DCF tab

#### Response:

a) There are several factors that influence the cost of servicing that can result in significant variability between projects. These factors include but are not limited to: site specific ground conditions (e.g., presence of rock), land parcel and building configuration, service length, location and depth of the connecting main (for tie in), and customer type (design varies based on connected load).

Project specific service estimates are prepared for each community expansion project based on measured average service lengths, general sizing for the project and site conditions. These project-specific estimates more accurately reflect the cost

of servicing in the proposed project area, which may differ from the Company's regional averages (established across a broader geographic location).

The estimated average all-in service cost for the Project is \$9,925 per customer.<sup>1</sup> Enbridge Gas does not have average all-in costs specific to new residential customers within the Project area.

b) Please see Table 1 for information regarding forecast customer attachments and estimated costs to attach customers by year. Enbridge Gas is not able to provide the estimated cost to attach customers by the amount that would be covered by rates and the amount that would be covered by customers directly. Enbridge Gas is not able to provide those amounts as they are not reasonably attributable to the specific costs to attach a customer (e.g., the meter, the pipe serving that customer only) versus the costs for other components of the Project (e.g., mains, stations) and are attributed to the Project in its entirety.

For example, customers who attach to the natural gas system as part of the Project will be charged a System Expansion Surcharge which is not attributable to the costs to attach the customer versus the cost for other components of the project. Similarly, NGEP funding is also not attributable in this manner.

<sup>&</sup>lt;sup>1</sup> This figure includes residential and commercial customer connection costs.

<u>Table 1</u> Service Cost for Residential Customers

Line			Year														
No.	Description	1	2	3	4	5	6	7	8	9	10	Total					
1.0	Forecasted attachment	56	162	130	76	75	33	31	31	31	31	656					
2.1	Average service cost/customer (\$CAD)	9,925	9,925	9,925	9,925	9,925	9,925	9,925	9,925	9,925	9,925	9,925					
2.2	Average excess footage charge/customer (\$CAD)	(545	(545)	(545)	(545)	(545)	(545)	(545)	(545)	(545)	(545)	(545)					
2.3	Average net service cost/customer (\$CAD)	9,380	9,380	9,380	9,380	9,380	9,380	9,380	9,380	9,380	9,380	9,380					
2.4	Estimated total net service cost (\$CAD)	525,282	1,519,566	1,219,405	712,883	703,503	309,541	290,781	290,781	290,781	290,781	6,153,304					

#### Notes:

Row 1.0 represents the forecasted customer attachments per year.

Row 2.1 represents the average base capital cost per customer to install a service for the Project. Row 2.2 represents the average excess footage charge per customer for the project (paid by customers). The Extra Length Charge (ELC) of \$159/m after the first 20 m from the property line is used in this analysis.<sup>2</sup>

Row 2.3 represents the average net base capital cost per customer to install a service for the Project. Row 2.4 represents the total net base capital cost for service installations for the forecasted customer attachment in the given year.

- c) Please see Attachment 1 to the response at Exhibit I.ED-20.
- d) The annual average incremental operational costs per average residential customer is shown in Table 2.

<sup>&</sup>lt;sup>2</sup> EB-2022-0200, Decision and Order, December 21, 2023, p. 50.

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Annual Average Incremental Operational Costs

Line No.	Item	O&M Cost
1	Distribution Operations	\$17.77
2	Customer Care	\$50.66
3	Employee Benefits	\$6.45
4	Average Total O&M Cost per Residential Customer	\$74.89

e) Yes.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-24 Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

# Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

Question(s):

- a) What is the forecast average all-in cost to connect a new residential customer to the gas system, including the cost of the meter, regulator, the pipe serving that specific customer, and the installation costs? Please differentiate between conversions and new build customers if possible. Please provide figures for Enbridge as a whole, the Enbridge rate zones, and the Union rate zones, as available. Please also include a breakdown between direct costs, incremental overheads, and normalized system reinforcement costs.
- b) How much up-front capital can the revenue from an individual customer support while maintaining a PI of 1.

# Response:

a) The estimated average all-in service cost for the Eganville Community Expansion Project is \$9,925 per customer. Enbridge Gas does not have average all-in costs specific to new build or conversion customers within the Project area. Please see the response to Exhibit I.ED-23 part a).

The average cost to connect a home to the natural gas system in the EGD rate zone<sup>1</sup> is \$5,673 and Union rate zone<sup>2</sup> is \$8,097.<sup>3</sup>

Regarding the requested breakdown between direct costs, incremental overheads and normalized system reinforcement costs, please see the response to Exhibit I.ED-20 including Attachment 1.

<sup>&</sup>lt;sup>1</sup> The average cost to connect a home in the EGD rate zone includes the weighted average cost of both new construction and existing homes and is based on the 2024 forecast revenues and costs.

<sup>&</sup>lt;sup>2</sup> The average cost to connect a customer in the Union rate zones is the average cost of all types of customers including residential, commercial, apartments and industrial and is based on the 2024 forecast revenues and costs.

<sup>&</sup>lt;sup>3</sup> EB-2022-0200, Exhibit JT3.11.

b) As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. For the Project, the upfront capital based on said update that can be supported by an individual customer is \$12,919. This number is derived by dividing the net capital cost (\$9,340,209) by total forecast customers (723).

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-25 Plus Attachment Page 1 of 3

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

Question(s):

- a) Please provide a table showing the full calculations and assumptions used to generate the revenue forecast from the customer attachment forecast. Please include, among other things, the annual customer attachments, annual customer totals, the use per customer, and the revenue generated per customer.
- b) If the customer attachment forecast underlying the DCF table differs from the one set out in Exhibit B, Tab 1, Schedule 1, Page 7, please explain and provide a reconciliation table.
- c) Does Enbridge agree that the number of customer attachments could be impacted by the relative cost-effectiveness of converting to gas versus converting to highefficiency cold climate air source heat pumps? If not, please explain.
- d) Does Enbridge agree that the number of customer attachments could be impacted by customer perceptions of the relative cost-effectiveness of converting to gas versus converting to high-efficiency cold climate air source heat pumps? If not, please explain.
- e) Please explain the basis for all of the average use assumptions underlying the revenue forecast.
- f) Please provide the full underlying assumptions and calculations used to determine the average use figures for customers in this area.
- g) Please provide actual average use figures for the closest area to the project that Enbridge has data for.
- h) If average use figures are higher than the actual use for Enbridge customers overall, please explain

- i) Please provide average use figures for Enbridge customers generally and for the applicable rate zone.
- j) As a condition of approval, is Enbridge willing to bear all of the risk that the actual average use of customers in this project is lower than forecast?

# Response:

- a) Please see Attachment 1 to this response.
- b) The customer attachment forecast underlying the DCF table is consistent with the one set out in Exhibit B, Tab 1, Schedule 1, p. 7, Table 2.

# c – d)

No. The attachment forecast is based on the energy interests expressed by actual residents and business-owners within the Project area, which intrinsically incorporate all factors including financial and non-financial considerations. The Company has no reason to believe that the attachment forecast is inaccurate.

# e - f)

Typically, the average use for residential customers is estimated based on historical averages by dwelling type (e.g., single, semi-detached, townhouse), and characteristics such as square footage and number/type of equipment information are considered when available. There is no single, standard calculation methodology that applies in all circumstances. The average use estimation for non-residential (commercial/industrial) customers is made using various methods including historical knowledge of type of business, and potential connected load (where available) derived from field verification.

- g) The project team does not have access to data for a nearby or similar project to provide a timely response for this interrogatory. Additionally, each community is unique, so it is not appropriate or valuable to compare the data for a nearby community.
- h) The weighted average residential use for Eganville of 2,432 m<sup>3</sup>/yr as stipulated in Attachment 1 is on par with the EGD rate zone typical average use for a residential customer of 2,400 m<sup>3</sup>/yr.
- i) The typical Residential Rate 1 average use is approximately 2,400 m<sup>3</sup>/yr. The EGD rate zone average use is approximately 4,300 m<sup>3</sup>/year (inclusive of all customer types). The overall Enbridge Gas average use is approximately 4,000 m<sup>3</sup>/yr (inclusive of all customer types, sectors and rate classes).

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-25 Plus Attachment Page 3 of 3

j) No. Please see response at Exhibit I.ED-42 for more detail.

	Eganville Pipeline Project Revenue by Year														
	Year 1 2 3 4 5 6 7 8 9 10 11-20 21 22 23														
Peridential															
Customer Attachments	56	162	130	76	75	33	31	31	31	31					
Cumulative Customers	56	218	348	424	499	532	563	594	625	656	656	656	656	656	656
The weighted Average Use (m3/year) Years of Revenue	2,432 40	2,432	2,432	2,432	2,432	2,432	2,432	2,432	2,432	2,432	2,432	2,432	2,432	2,432	2,432
Annual Revenue:															
Fixed Customer Charge/Customer	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56	262.56
Annual Distribution Revenue/Customer	479.10	467.35	462 57	459.40	456.43	455.31	192.90	455.82	456 14	456.43	456.56	456.56	194.00	456.56	456.56
	470.10	407.00	402.07	400.40	400.40	400.01	400.40	400.02	400.14	400.40	400.00	400.00	400.00	400.00	400.00
Distribution Revenue on Current Year Customer Attachments (1/2 year)	13,415	37,856	30,067	17,457	17,116	7,513	7,060	7,065	7,070	7,075	200 505	200 505	200 505	200 505	200 505
Total Distribution Revenue for the Year - Residential	13,415	64,028	130,908	177,330	210,643	234,711	249,367	263,692	278,017	292,342	299,505	299,505	299,505	299,505	299,505
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
SES Revenue on Current Year Customer Attachments (1/2 year)	15 664	45 313	36 362	21 258	20.978	9 230	8 671	8 671	8 671	8 671		-			-
SES Revenue on Prior Years Customer Attachments (full year)		31,327	121,953	194,678	237,194	279,150	297,611	314,953	332,295	349,637	366,979	366,979	366,979	366,979	366,979
Total SES Revenue for the Year - Residential	15,664	76,640	158,316	215,936	258,172	288,380	306,282	323,624	340,966	358,308	366,979	366,979	366,979	366,979	366,979
Total Distribution + SES Revenue - Residential	29,078	140,668	289,223	393,265	468,815	523,091	555,648	587,316	618,983	650,650	666,484	666,484	666,484	666,484	666,484
* The distribution margin varies year over year based on the customer mix over th	e customer attachment horizon	l.													
Small Commercial															
Customer Attachments	3	5	3	4	2	1	1	1	1	-	-	-	-	-	-
Cumulative Customers	3	8	11	15	17	18	19	20	21	21	21	21	21	21	21
Average Use (m3/year)	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320	2,320
Years of Revenue	40														
Annual Revenue:															
Fixed Customer Charge/Customer	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96
Distribution Margin/Customer	201.98	201.98	201.98	201.98	201.98	201.98	1 120 04	201.98	201.98	201.98	201.98	201.98	201.98	201.98	201.98
Annual Distribution Revenue Customer	1,120.84	1,120.04	1,120.54	1,120.04	1,120.54	1,120.84	1,120.04	1,120.04	1,120.84	1,120.84	1,120.04	1,120.54	1,120.04	1,120.54	1,120.84
Distribution Revenue on Current Year Customer Attachments (1/2 year)	1,681	2,802	1,681	2,242	1,121	560	560	560	560	-	-	-	-	-	-
Total Distribution Revenue for the Year - Small Commercial	1.681	6.165	10.649	14.572	17.935	19,616	20,737	21,290	22,979	23,540	23,540	23,540	23,540	23,540	23,540
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
SES Revenue on Current Year Customer Attachments (1/2 year)	800	1,334	800	1,067	534	267	267	267	267	-		-	-	-	-
SES Revenue on Prior Years Customer Attachments (full year)		1,601	4,269	5,870	8,004	9,071	9,605	10,138	10,672	11,206	11,206	11,206	11,206	11,206	11,206
Total SES Revenue for the Year - Small Commercial	800	2,935	5,069	6,937	8,538	9,338	9,872	10,405	10,939	11,206	11,206	11,206	11,206	11,206	11,206
Total Distribution + SES Revenue - Small Commercial	2.482	9 100	15 718	21 509	26.473	28 954	30 609	32 264	33 018	34 745	34 745	34 745	34 745	34 745	34 745

	Eganville Pipeline Project Revenue by Year														
						Year									
	1	2	3	4	5	6	7	8	9	10	11-20	21	22	23	24-40
Medium Commercial Customer Attachments Cumulative Customers	3 3	4 7	4 11	3 14	1 15	1 16	1 17	1 18	1 19	- 19	- 19	- 19	- 19	- 19	- 19
Average Use (m3/year) Years of Revenue	5,000 40	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Annual Revenue: Fixed Customer Charge/Customer Distribution Margin/Customer Annual Distribution Revenue/Customer	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67	918.96 406.71 1,325.67
Distribution Revenue on Current Year Customer Attachments (1/2 year) Distribution Revenue on Prior years Customer Attachments (full year)	1,988	2,651 3,977	2,651 9,280	1,988 14,582	663 18,559	663 19,885	663 21,211	663 22,536	663 23,862	25,188	25,188	25,188	25,188	25,188	25,188
Total Distribution Revenue for the Year - Medium Commercial	1,988	6,628	11,931	16,571	19,222	20,548	21,873	23,199	24,525	25,188	25,188	25,188	25,188	25,188	25,188
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
SES Revenue on Current Year Customer Attachments (1/2 year) SES Revenue on Prior Years Customer Attachments (full year)	1,725	2,300 3,450	2,300 8,050	1,725	575	575	575 18,400	575	575 20,700	21,850	21,850	21,850	21,850	21,850	21,850
Total SES Revenue for the Year - Medium Commercial	1,725	5,750	10,350	14,373	10,075	17,025	10,975	20,123	21,275	21,050	21,030	21,000	21,030	21,030	21,000
Total Distribution + SES Revenue - Medium Commercial	3,713	12,378	22,281	30,946	35,897	38,373	40,848	43,324	45,800	47,038	47,038	47,038	47,038	47,038	47,038
Large Commercial Customer Attachments Cumulative Customers	1 1	3 4	3 7	3 10	2 12	1 13	- 13								
Average Use (m3/year) Years of Revenue	10,000 40	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Annual Revenue: Fixed Customer Charge/Customer Distribution Margin/Customer Annual Distribution Revenue/Customer	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64	918.96 736.68 1,655.64
Distribution Revenue on Current Year Customer Attachments (1/2 year) Distribution Revenue on Prior Years Customer Attachments (full year) Total Distribution Revenue for the Year - Larce Commercial	828 - 828	2,483 1,656 4.139	2,483 6,623 9,106	2,483 11,589 14.073	1,656 16,556 18,212	828 19,868 20,695	21,523	21,523	21,523	21,523	21,523	21,523	21,523	21,523	21,523
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
SES Revenue on Current Year Customer Attachments (1/2 year) SES Revenue on Prior Years Customer Attachments (full year)	1,150	3,450 2,300	3,450 9,200	3,450 16,100	2,300 23,000	1,150 27,600	29,900	29,900	29,900	29,900	29,900	29,900	29,900	29,900	29,900
Total SES Revenue for the Year - Large Commercial	1,150	5,750	12,650	19,550	25,300	28,750	29,900	29,900	29,900	29,900	29,900	29,900	29,900	29,900	29,900
Total Distribution + SES Revenue - Large Commercial	1,978	9,889	21,756	33,623	43,512	49,445	51,423	51,423	51,423	51,423	51,423	51,423	51,423	51,423	51,423

	Eganville Pipeline Project Revenue by Year														
	1	2	3	4	5	Year 6	7	8	9	10	11-20	21	22	23	24-40
Other Commercial															
Customer Attachments		2	2	4	2					-					
Cumulative Customers	-	2	4	8	10	10	10	10	10	10	10	10	10	10	10
The weighted Average Use (m3/year) Years of Revenue	18,296 40	18,296	18,296	18,296	18,296	18,296	18,296	18,296	18,296	18,296	18,296	18,296	18,296	18,296	18,296
Annual Revenue:															
Fixed Customer Charge/Customer	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	919.96	920.96	921.96	921.96
Distribution Margin/Customer*	1,098.98	1,098.98	1,037.76	1,131.55	1,180.02	1,169.04	1,169.04	1,169.04	1,169.04	1,169.04	1,169.04	1,168.04	1,167.04	1,166.04	1,166.04
Annual Distribution Revenue/Customer	2,017.94	2,017.94	1,956.72	2,050.51	2,098.98	2,088.00	2,088.00	2,088.00	2,088.00	2,088.00	2,088.00	2,088.00	2,088.00	2,088.00	2,088.00
Distribution Revenue on Current Year Customer Attachments (1/2 year) Distribution Revenue on Prior Years Customer Attachments (full year)		2,018	1,957 3.913	4,101 8,202	2,099 16,792	20.880	20.880	20.880	20.880	20.880	20.880	20.880	20.880	20.880	20.880
Total Distribution Revenue for the Year - Other Commercial		2,018	5,870	12,303	18,891	20,880	20,880	20,880	20,880	20,880	20,880	20,880	20,880	20,880	20,880
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
SES Revenue on Current Year Customer Attachments (1/2 year)		4,208	4,208	8,416	4,208	-			-	-			-		
SES Revenue on Prior Years Customer Attachments (full year)		<u> </u>	8,416	16,833	33,665	42,081	42,081	42,081	42,081	42,081	42,081	42,081	42,081	42,081	42,081
Total SES Revenue for the Year - Other Commercial		4,208	12,624	25,249	37,873	42,081	42,081	42,081	42,081	42,081	42,081	42,081	42,081	42,081	42,081
Total Distribution + SES Revenue - Other Commercial		6,226	18,495	37,552	56,764	62,961	62,961	62,961	62,961	62,961	62,961	62,961	62,961	62,961	62,961
* The distribution margin varies year over year based on the customer mix over the c	ustomer attachment horizor	ı.													
School															
Customer Attachments	-		1					-							
Cumulative Customers	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1
Average Use (m3/year) Years of Revenue	50,000 40	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Annual Revenue:															
Fixed Customer Charge/Customer	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96
Distribution Margin/Customer	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75	2,691.75
Annual Distribution Revenue/Customer	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71	3,610.71
Distribution Revenue on Current Year Customer Attachments (1/2 year)		-	1,805					-		-					-
Distribution Revenue on Prior Years Customer Attachments (full year)	-	-	-	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611
Total Distribution Revenue for the Year - School	<u> </u>	<u> </u>	1,805	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611	3,611
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
SES Revenue on Current Year Customer Attachments (1/2 year)	-	-	5,750	-	-	-	-	-	-	-	-	-	-	-	-
SES Revenue on Prior Years Customer Attachments (full year)		<u> </u>	<u> </u>	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500
Total SES Revenue for the Year - School			5,750	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500
Total Distribution + SES Revenue - School		-	7,555	15,111	15,111	15,111	15,111	15,111	15,111	15,111	15,111	15,111	15,111	15,111	15,111

						Eganville Pipe Project Revenue	eline by Year								
	1	2	3	4	5	Year 6	7	8	9	10	11-20	21	22	23	24-40
Large School															
Customer Attachments	-	1	-	-	-	-	-	-		-	-	-	-	-	-
Cumulative Customers	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Average Use (m3/year) Years of Revenue	58,352 40	58,352	58,352	58,352	58,352	58,352	58,352	58,352	58,352	58,352	58,352	58,352	58,352	58,352	58,352
Annual Revenue:															
Fixed Customer Charge/Customer	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96
Distribution Margin/Customer	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58	3,041.58
Annual Distribution Revenue/Customer	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54	3,960.54
Distribution Revenue on Current Year Customer Attachments (1/2 year)	-	1,980	2 001	2.004	-	2 001	2.004	2.001			2.061			-	-
Total Distribution Revenue for the Year - Large School		1,980	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961	3,961
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
SES Revenue on Current Year Customer Attachments (1/2 year)		6 710													
SES Revenue on Prior Years Customer Attachments (full year)	-	-	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421
Total SES Revenue for the Year - Large School	<u> </u>	6,710	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421	13,421
Total Distribution + SES Revenue - Large School	<u> </u>	8,691	17,382	17,382	17,382	17,382	17,382	17,382	17,382	17,382	17,382	17,382	17,382	17,382	17,382
Agri Business Customer Attachments		1	1												
Cumulative Customers		1	2	2	2	2	2	2	2	2	2	2	2	1	
Average Lise (m3/year)	10.000	10 000	10.000	10 000	10 000	10 000	10 000	10 000	10 000	10 000	10,000	10.000	10 000	10 000	
Years of Revenue	40	,							,		,				
Annual Revenue:															
Fixed Customer Charge/Customer	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	918.96	919.96	
Distribution Margin/Customer	736.68	736.68	736.68	736.68	736.68	736.68	736.68	736.68	736.68	736.68	736.68	736.68	736.68	735.68	
Annual Distribution RevenuerCustomer	1,035.04	1,035.04	1,035.04	1,055.04	1,055.04	1,000.04	1,055.04	1,055.04	1,035.04	1,055.04	1,035.04	1,035.04	1,055.04	1,055.04	
Distribution Revenue on Current Year Customer Attachments (1/2 year)		828	828		-								828	828	
Distribution Revenue on Prior Years Customer Attachments (tuli year)		-	1,050	3,311	3,311	3,311	3,311	3,311	3,311	3,311	3,311	3,311	1,050	-	
Total Distribution Revenue for the Year - Agn Business		620	2,403	3,311	3,311	3,311	3,311	3,311	3,311	3,311	3,311	3,311	2,403	020	
SES Revenue Rate (\$/m3)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	
SES Revenue on Current Year Customer Attachments (1/2 year)		1,150	1,150	-	-	-	-	-		-	-	-	1,150	1,150	
SES Revenue on Prior Years Customer Attachments (full year)			2,300	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	2,300		
Total SES Revenue for the Year - Agri Business	<u> </u>	1,150	3,450	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	3,450	1,150	
Total Distribution + SES Revenue - Agri Business	<u> </u>	1,978	5,933	7,911	7,911	7,911	7,911	7,911	7,911	7,911	7,911	7,911	5,933	1,978	
Total Project Distribution + SES Pavanue	27 252	199 920	208 242	EE7 200	671 964	742 220	791 904	917 692	952 490	997 224	902 055	902 055	901 077	907 122	80E 144

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# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

Question(s):

- a) Please describe all studies and analysis that Enbridge has undertaken to determine the likelihood of residential customers switching from gas to electric heat pumps before the end of the 40-year revenue horizon (if any). Please file any studies or assessments that were undertaken.
- b) Please confirm that customers with propane furnaces that attach to Enbridge's system will be able to convert their existing furnaces to burn methane gas without replacing those furnaces?
- c) What is the estimate average age of propane furnaces for Enbridge customers in the expansion area? Please base the average on the best available information, including the Innovative Research Group survey results, and confirm whether the answer has added three years to the average life to reflect the passage of three years since the survey was conducted.
- d) If a customer with a propane furnace converts it to methane gas to connect to Enbridge's system, please confirm that they could subsequently switch away from Enbridge's system in favour of an electric heat pump when their furnace reaches the end of its life.

#### Response:

a) Enbridge Gas is not aware of, nor has it undertaken the requested analysis. The market survey results provided at Exhibit B, Tab 1, Schedule 1, Attachment 6 are currently the best available information regarding potential customers' energy preferences in the Project Area. Customers are able to choose from all available energy sources the mix of energy that works best to meet their specific needs. A customer that is considering an electric heat pump may also choose to retain their furnace as a backup to supplement their electric heating equipment.

- b) In the vast majority of cases the answer is yes. The conversion of a furnace from propane to natural gas does not typically require an entirely new furnace. Customers should consult with a licensed HVAC contractor to confirm if their particular furnace is a good candidate for conversion. Typically, the only limiting factor would be the age of the furnace and if parts are readily available. In most cases furnaces 10 years of age or newer are good candidates for conversions.
- c) Enbridge Gas interprets the request as pertaining to prospective customers in the Eganville Project area and not existing Enbridge Gas customers. The average age of propane systems used as the primary heating source was 5.67 years when measured by the Forum survey between May 27, 2022, and June 22, 2022. For the purpose of calculating the average, responses of "less than one year old" were counted as 1.
- d) Confirmed.

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# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

# Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

## Question(s):

- a) How will Enbridge track and report on variances in average use, and potential revenue shortfalls arising therefrom over time, and who will bear those risks as between the shareholder and ratepayer in light of the average use variance account?
- b) With respect to the revenue generated in the first 10 years, does Enbridge or do ratepayers bear the risk of average use being lower than forecast? Please explain.
   Please describe how the average use variance account is relevant to this question.
- c) With respect to the revenue generated in the final 30 years, does Enbridge or do ratepayers bear the risk of average use being lower than forecast? Please explain. Please describe how the average use variance account is relevant to this question.

#### Response:

a - c) Please see response at Exhibit I.ED-42.

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# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

# Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

Question(s):

- a) Please provide Enbridge's best estimate of the relative cost-effectiveness of an average customer in the project area converting to an air-source cold climate heat pump versus gas. Please generate (i) the lifetime difference in total capital costs and operational costs (NPV) based on customer prices over the equipment lifetime and (ii) the difference in average annual operational costs over the equipment lifetime. Please include all material customer-facing costs and benefits, including energy costs, carbon costs, the Greener Homes Grant incentives for heat pumps, and the gains from more efficient summer cooling of an air source heat pump versus a traditional air conditioner. Please provide all calculations and assumptions. Please make assumptions and state caveats as necessary.
- b) Please re-run the cost comparison spreadsheet underlying (a) with the following assumptions:
  - i) Customer-facing gas and electricity prices for the project ara are based on either: (A) the average price over the past 12 months inflated by 2% annually going forward or (B) the current prices inflated by 2% annually going forward;
  - ii) A carbon price forecast consistent with the IESO 2050 Pathways to Decarbonization Report, namely: that the carbon price "[c]ontinues rising by \$15/tonne from 2030-2035, and thereafter increases with the rate of inflation."
  - iii) The installed cost and performance (COP/HSPF & SEER) of the cold climate air source heat pump is based on the Moovair Central heat pumps;<sup>1</sup>
  - iv) The average SEER of an air conditioner is 13 (per EB-2021-0002, Exhibit I.10h.STAFF77);
  - v) Two scenarios for water heating: (A) the customer keeps their existing electric water heater and (B) the customer purchases a Rheem hybrid high-efficiency heat pump water heater;
  - vi) The customer's air conditioner is at 50% of its useful lifetime and its future replacement costs are avoided if the customer installs a heat pump; and
  - vii) The customer will incur the average Extra Length Charge if they switch to gas.

<sup>&</sup>lt;sup>1</sup> The specs for the Moovair central can be found here: https://moovair.ca/central-moov-2022/.

- c) Fall each scenario, please provide the lifetime NPV and the first-year annual operating costs for both options.
- d) Please provide the live spreadsheets containing these calculations.
- e) Please confirm that Moovair is a heat pump developed and sold by The Master Group, which is the largest independent HVAC-R distributor in Canada.<sup>2</sup> [To explain why we suggest using that model as a concrete example.]
- f) Do the average-use figures assumed in Enbridge's revenue forecast correspond to customers with gas for space heating only or also gas for other uses, such as water heating?
- g) Please confirm that there are over 430 models of centrally-ducted heat pumps on the Greener Homes Grant eligible equipment list with an HSPF (Region 5) of 10 or higher and that the top-rated Carrier 3-ton units have an HSPF (Region 5) of 11.3.
- h) Please confirm that there are over 270 models of centrally-ducted heat pumps rated for 30,000 BTUs or higher on the Greener Homes Grant eligible equipment list with an HSPF (Region 5) of 10 or higher.
- i) Please provide the conversion rate between region 4 and 5 HSPF figures and between HSPF and COP.
- j) Please provide a table for the duration of the customer attachment horizon with rows for:
  - (i) The number of forecast attachments;
  - (ii) The average capital cost per attachment (e.g., dedicated service line and meter);
  - (iii) The amount of the attachment costs in (ii) covered by rates on average;
  - (iv) The amount of the attachment costs in (ii) covered by the customer on average;
  - (v) the total attachment costs (dedicated service line and meter) for each year; and
  - (vi) A reconciliation of (v) with the incremental capital figures in the DCF table in E-1-1 Attachment 2

# Response:

a) The Company does not have information regarding annual fuel costs and/or customer lifetime cost-effectiveness for electric heat pumps, specific to the homes in the Project area. However, in Q1 2023 the Company engaged Guidehouse Inc.

<sup>&</sup>lt;sup>2</sup> https://moovair.ca/why-moovair/

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(Guidehouse) to provide an assessment of the annual operating costs of highefficiency electric cold climate air source heat pumps (ccASHP) within four Ontario climates (Windsor, Toronto, Ottawa, and Thunder Bay) at three peak winter design loads (2.5 tons, 4 tons, and 5 tons). The Guidehouse report can be found at Attachment 1 to this response. The spreadsheet model referenced on page 1 of the Guidehouse report is provided as a live Excel document at Attachment 2 to this response.

It is important to note that the scope of the Guidehouse report consisted of an assessment of annual operating costs and did not include an assessment of upfront capital costs which are required to conduct a customer lifetime cost-effectiveness analysis of converting a home to a high-efficiency electric ccASHP configuration.

Assessing the upfront costs required to convert a home to a high-efficiency electric ccASHP configuration requires consideration of several factors, which results in a more complex analysis than assessing the upfront costs required to convert a home to a natural gas furnace configuration. For example, in addition to the cost of the heat pump itself, a home could also require electrical panel upgrades, exterior service upgrades from the electric utility, internal wiring upgrades, duct work improvements, etc. Enbridge Gas understands that there is a wide range of potential upfront costs depending on the existing configuration of the home itself. For this reason, the Company is not able to provide an average upfront cost, which would be required to develop an average customer lifetime cost-effectiveness analysis. Any attempt to do so would result in an oversimplification of the conversion costs for specific homes in the Project area.

In May 2023, the Company requested low-end and high-end upfront cost estimates from HVAC contractors for conversions to both high-efficiency electric ccASHP configurations and natural gas furnace configurations. The request for information from Enbridge Gas to HVAC contractors can be found at Attachment 3 to this response. Five HVAC contractors responded to Enbridge Gas's request, each providing low-end and high-end upfront cost estimates. A summary of the responses from HVAC contractors can be found at Attachment 4 to this response. The overall low-end and high-end results based on the information from HVAC contractors are provided in Table 1. Enbridge Gas cautions that the results are meant to be illustrative and that more refined research would be required to establish robust estimates/assumptions.
#### <u>Table 1</u>

#### Upfront Costs

	Low-end Upfront Cost	High-end Upfront Cost
Conversion to Natural Gas Furnace Configuration	\$3,890	\$11,500
	Low-end Upfront Cost	High-end Upfront Cost
Conversion to High-Efficiency Electric ccASHP Configuration	\$11,400	\$50,500

Subject to meeting program eligibility requirements certain homeowners could be eligible for up to \$5,000 in grants from the federal government for qualifying electric air source heat pumps. See Table 2 for the inclusion of the grant to the low-end upfront cost scenario for the conversion to high-efficiency electric ccASHPs. Since not all applications are necessarily eligible for the grant, the high-end upfront cost scenario does not include the grant amount.<sup>3</sup>

Table	2

# Upfront Costs, including \$5,000 Federal Grant

	Low-end Upfront Cost <i>(a)</i>	High-end Upfront Cost <i>(b)</i>
Conversion to Natural Gas Furnace Configuration	\$3,890	\$11,500
	Low-end Upfront Cost (c)	High-end Upfront Cost <i>(d)</i>
Conversion to High-Efficiency Electric ccASHP Configuration	\$6,400	\$50,500

It should be noted that there is not necessarily a correlation between the upfront costs for conversions to high-efficiency electric ccASHP configurations and conversions to natural gas furnace configurations. More specifically, a home may require upfront costs to convert to a natural gas furnace configuration that is on the low-end of costs for that configuration, whereas that same home may require upfront costs to convert to a high-efficiency electric ccASHP that is on the high-end of costs for that configuration – and vice versa. For example, a home may not require any additional costs beyond the natural gas furnace itself to convert to a natural gas furnace configuration, whereas that same home may require additional costs beyond the same home may require additined beyond the same

<sup>&</sup>lt;sup>3</sup> The high-end up-front cost scenario reflects the high-end upfront cost that consumers may potentially incur to convert their home to a high-efficiency electric ccASHP configuration. As such, if not all electric heat pump applications are eligible for the grant, it would not be appropriate to include the grant in the potential high-end upfront cost scenario.

electrical panel upgrades, exterior service upgrades from the electric utility, internal wiring upgrades, duct work improvements, etc.). For this reason, a more accurate approach to assessing a home's potential range of upfront conversion costs would be to compare the low-end and high-end upfront costs of each configuration to each other (rather than comparing the low-end upfront cost of each configuration to each other, and the high-end upfront cost of each configuration to each other.

Using the figures in Table 2 above, Table 3 below provides the upfront cost comparison between (i) the low-end upfront cost of conversion to a high-efficiency electric ccASHP configuration compared to the high-end upfront cost of conversion to a natural gas furnace configuration, and (ii) the high-end upfront cost of conversion to a high-efficiency electric ccASHP configuration compared to the low-end upfront cost of conversion to a natural gas furnace to the anatural gas furnace configuration.

<u>Table 3</u>
Upfront Cost Comparison

	Low-end Upfront Cost ( $e = c - b$ )	High-end Upfront Cost $(f = d - a)$
Conversion to High-Efficiency Electric ccASHP Configuration vs. Conversion to Natural Gas Furnace Configuration	-\$5,100	\$46,610

A negative figure in Table 3 above means the upfront cost for conversion to a highefficiency electric ccASHP configuration is lower than the upfront cost for conversion to a natural gas furnace configuration. A positive figure means the upfront cost for conversion to a high-efficiency electric ccASHP configuration is higher than the upfront cost for conversion to a natural gas furnace configuration.

To provide ranges for the customer lifetime cost-effectiveness of converting a home to a high-efficiency electric ccASHP configuration compared to a natural gas furnace configuration, Enbridge Gas combined the upfront cost information in Table 3 with the annual operational cost information from the Guidehouse study. The following 12 scenarios were assessed.

- Toronto, low-end upfront cost, 2.5 ton
- Toronto, low-end upfront cost, 4 ton
- Toronto, low-end upfront cost, 5 ton
- Toronto, high-end upfront cost, 2.5 ton
- Toronto, high-end upfront cost, 4 ton
- Toronto, high-end upfront cost, 5 ton

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- Ottawa, low-end upfront cost, 2.5 ton
- Ottawa, low-end upfront cost, 4 ton
- Ottawa, low-end upfront cost, 5 ton
- Ottawa, high-end upfront cost, 2.5 ton
- Ottawa, high-end upfront cost, 4 ton
- Ottawa, high-end upfront cost, 5 ton

Please see Attachment 5 for details regarding the natural gas costs (including carbon costs) used in the assessment, provided as an Excel document with formulae intact. The natural gas costs used in the assessment are based on April 2023 QRAM for Rate 1 including SES. The carbon costs reflect the Federal Carbon Charge escalating to \$170/tCO<sub>2</sub>e by 2030.<sup>4</sup> The electricity costs used in the assessment are consistent with the approach described in response to Exhibit I.ED-1 parts c) – d) (i.e., 0.1133 \$/kWh).

It is important to note that the energy costs used in the analysis are a snapshot in time and thus may not be reflective of consumer expectations for long-term energy prices. For example, natural gas commodity prices experienced a significant short-term increase in 2022 due to various factors including geo-political conflicts and COVID-19 pandemic-related economic impacts. Such factors impacting the volatility and increase in natural gas prices observed in 2022 are considered to be unique and commodity prices are already stabilizing and declining relative to 2022.

See Table 4 for the customer lifetime cost-effectiveness of high-efficiency electric ccASHP configurations when compared to natural gas furnace configurations, based on the information described above. Please see Attachment 6 for the calculations underlying the figures in Table 4, provided as an Excel document with formulae intact.<sup>5</sup>

Table 4

Customer Lifetime Cost-Effectiveness of High-Efficiency Electric ccASHP Configurations when compared to Natural Gas Furnace Configurations<sup>6</sup>

Scenario	Customer Lifetime Cost- Effectiveness (Low-End Upfront Cost)	Customer Lifetime Cost- Effectiveness (High-End Upfront Cost)			
Toronto, 2.5 ton	\$12,087	-\$39,623			
Toronto, 4 ton	\$16,269	-\$35,441			
Toronto, 5 ton	\$19,059	-\$32,651			
Ottawa, 2.5 ton	\$12,674	-\$39,036			
Ottawa, 4 ton	\$17,204	-\$34,506			
Ottawa, 5 ton	\$20,219	-\$31,491			

<sup>4</sup> https://www.enbridgegas.com/en/residential/my-account/rates/federal-carbon-charge

<sup>6</sup> A 4% discount rate was used for the lifetime analysis.

<sup>&</sup>lt;sup>5</sup> Annual operational cost savings figures are not formulaic as they are outputs from the spreadsheet model.

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A positive figure in Table 4 above means the customer lifetime cost-effectiveness for conversion to a high-efficiency electric ccASHP configuration is more favourable when compared to conversion to a natural gas furnace configuration. A negative figure means the customer lifetime cost-effectiveness for conversion to a high-efficiency electric ccASHP configuration is less favourable when compared to conversion to a natural gas furnace configuration.

Based on the information in Table 4 above, conversion to a high-efficiency electric ccASHP configuration could be more cost-effective for space heating for some homeowners when compared to a conversion to a natural gas furnace configuration, whereas for other homeowners the natural gas solution would be more cost-effective.

Please note that the analysis does not consider water heating components which, if customers chose all-electric configurations, would require additional considerations (i.e., a comparison of upfront and operational costs for electric water heating solutions compared to natural gas water heating solutions).

Additionally, Enbridge Gas does not have information regarding high-efficiency electric ccASHPs with respect to summer space cooling. It should be noted that the inclusion of electric summer cooling to the cost-effectiveness analysis is complex as it would not only require a technical assessment of the performance efficiencies of electric summer cooling equipment types but also an assessment of the impact that electric heat pumps have on consumer energy bills for those consumers who would not opt for traditional electric summer cooling equipment with a natural gas furnace. Said differently, a home with a high-efficiency electric ccASHP configuration would have higher summer electricity cooling costs (i.e., higher energy costs) when compared to a home with a natural gas furnace configuration without air conditioning.

Notwithstanding cost-effectiveness analyses related to any energy solution (natural gas, electric heat pumps, or otherwise) Enbridge Gas submits that it is critical to assess the energy solution interests of actual residents and business-owners within the Project area. The Company cautions against relying on theoretical cost-effectiveness analyses as a solitary basis for determining consumer energy interests. Rather, the interests expressed by actual consumers within a particular Project area/community are directly reflective of those consumers' preferences and energy decisions as they inherently encompass all relevant factors, including financial and non-financial considerations.

b)

i. Enbridge Gas respectfully declines to provide the requested adjustments to the Company's analysis. There is no basis for the assumption that natural gas prices will increase annually by 2%. Natural gas prices vary based on several factors including market factors and do not typically escalate annually by a factor of 2%.

- ii. Enbridge Gas respectfully declines to provide the requested adjustments to the Company's analysis. There is no basis for the assumption that carbon prices will escalate annually by \$15/tonne from 2030-2035. Enbridge Gas is not aware of any announced policies indicating such. Enbridge Gas understands the source referenced by ED in the interrogatory to be part of a scenario analysis and not an expectation or forecast of carbon prices.
- iii. Regarding installed costs, Enbridge Gas could not identify installed cost figures within the source referenced by ED in the interrogatory, and as such cannot provide the requested adjustment to the Company's analysis. Regardless, Enbridge Gas cautions against making selective adjustments to the analyses based on information from a single manufacturer/distributor. Enbridge Gas submits that the upfront cost assumptions used in its analysis is more robust, as it relies on information from several HVAC contractors rather than a single manufacturer/distributor.

Regarding performance efficiency assumptions, Enbridge Gas respectfully declines to provide the requested adjustments to the Company's analysis, as it would be based on information from a single manufacturer/distributor. Enbridge Gas cautions against making selective adjustments to the analyses based on information from a single manufacturer/distributor. Enbridge Gas submits that the performance efficiency assumptions used in its analysis are more robust, as they rely on information from a variety of electric heat pump products rather than from a single manufacturer/distributor. To review the list of electric heat pump products incorporated in Enbridge Gas's analysis, please see the "All HP's NEEP Database" tab in Attachment 2 to this response.

- iv. As per the response to part a) above, Enbridge Gas does not have information regarding high-efficiency electric ccASHPs with respect to summer cooling, and the Company's analysis does not include summer cooling considerations. As such, Enbridge Gas is not able to include the requested summer cooling efficiency adjustments to the Company's analysis.
- v. As per the response to part a) above, the Enbridge Gas analysis does not consider water heating components. As such, Enbridge Gas is not able to include the requested water heating efficiency adjustments to the Company's analysis.
- vi. As per the response to part a) above, Enbridge Gas does not have information regarding high-efficiency electric ccASHPs with respect to summer cooling, and the Company's analysis does not include summer cooling considerations. As such, Enbridge Gas is not able to include the requested summer cooling efficiency adjustments to the Company's analysis.
- vii. Enbridge Gas respectfully declines to provide the requested adjustments to the Company's analysis. As per the response to part a) above, Enbridge Gas's analysis does not rely on average upfront cost assumptions when comparing the

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cost to convert a home to a high-efficiency electric ccASHP configuration versus a natural gas furnace configuration. Enbridge Gas understands that there is a wide range of potential upfront costs depending on the existing configuration of the home itself. For this reason, the Company is not able to provide an average upfront cost, and adding an average cost as per ED's interrogatory request would be incongruent with the analysis.

c - d)

Please see the responses to part b) above.

- e) The website referenced by ED in the interrogatory claims that the Moovair is developed by the Master Group and that the Master Group is the largest independent distributor of HVAC-R products in the country, however Enbridge Gas has not independently verified the information.
- f) The average-use figures assumed in Enbridge Gas's revenue forecast correspond to space heating and other uses, such as water heating.
- g) Confirmed.
- h) Confirmed.
- i) The HSPF ratings for region 4 can be approximately converted to HSPF ratings for region 5 by dividing the region 4 HSPF by 1.15.

j)

- i) Please see Exhibit B, Tab 1, Schedule 1, Table 2.
- ii) Please see the response at Exhibit I.ED-23 part a).
- iii.- iv.) Please see the response at Exhibit I.ED-23 part b).
- v.-vi.) Please see the response and Attachment 1 at Exhibit I.ED-20.



To:Enbridge Gas Inc.From:GuidehouseDate:May 19th, 2023

Re: Comparison of heat pump configurations - All-electric (including air source heat pump/electric resistance supplemental) and Hybrid (ASHP/gas furnace backup) performance for space heating in Ontario homes

# Introduction

This memo has been prepared by Guidehouse to examine the performance and operational costs of all-electric and hybrid air source pump systems for typical Ontario homes. The presented costs reflect anticipated annual heating utility costs for an average homeowner, which represent the cost of operating the heating equipment only (note actual utility bills may range due to a variety of site-specific factors). Capital costs including equipment first costs, infrastructure upgrade costs within the home, and installation costs are out of scope and not considered in this analysis. The analysis does not represent an all-in lifecycle cost analysis. Given that installation costs are highly dependent on initial conditions and highly variable, the average installation cost is not useful from a policy perspective, as it is not indicative of any actual consumer experience. Four different heat pump configurations have been assessed with three different system sizes across four locations in Ontario. The analysis will assist Enbridge in evaluating the performance trade-offs between all-electric heat pump systems and hybrid heat pump systems backed up with natural gas.

# Approach

Heat pump heating performance was calculated using a custom-built spreadsheet tool developed for this analysis. The spreadsheet tool, titled "Enbridge Heat Pump Model" herein referred to as "the spreadsheet model", has been delivered with this memo and contains additional details regarding the specific calculation methodologies used for this analysis.

Four different heat pump configurations were considered for this analysis:

- Hybrid Heating Heat Pump Coil with Existing Furnace
- Hybrid Heating Heat Pump with New Furnace
- Cold Climate Heat Pump
- Non-Cold Climate Heat Pump

System performance criteria was developed to fully characterize each of the systems including the development of capacity and efficiency performance curves, heat pump efficiencies, and supplemental heating efficiencies. Whole building energy modeling with EnergyPlus was used to model single family residential prototype models and generate hourly heating profiles for four locations across Ontario: Ottawa, Toronto, Windsor, and Thunder Bay. The system performance criteria in conjunction with the heating profiles from the energy model are used within the spreadsheet model to calculate hourly consumption of natural gas and electricity for each of the system configurations. Performance is calculated for each system type and location at three peak winter design loads: 30,000 Btu/hr (2.5 tons), 48,000 Btu/hr (4 tons), and 60,000 Btu/hr.

A baseline scenario with new 95% annual fuel utilization (AFUE) furnace serves as the comparator the heat pump systems are measured against. The following performance metrics are reported:

- Electricity/natural gas consumption
- Peak hourly consumption
- Energy cost/savings
- Greenhouse gas emissions

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# System Characterization

Heat pump heating performance curves were developed for four heat pump configurations: hybrid heating heat pump coil with existing furnace, hybrid heating heat pump with new furnace, cold climate heat pump with electric resistance backup heating, and a traditional non-cold climate heat pump with electric resistance backup heating<sup>1</sup>. To define these system configurations and develop the performance curves needed to assess heating system performance, a large database of heat pump equipment and performance values (Northeast Energy Efficiency Partnerships - NEEP 2019 database, which contains more than 5,000 heat pump systems) was used to calculate the average market performance for each of the system configurations. The heat pump criteria used to define each scenario and stratify the NEEP database entries are as follows:

**Hybrid Heating Heat Pump Coil with Existing Furnace**: AHRI Type HRCU-A-C with centrally ducted configuration. Heat pump maintenance capacity (max 5°F/-15°C capacity divided by rated 47°F/8°C capacity) less than 80% - non cold climate heat pump.

**Hybrid Heating Heat Pump with New Furnace**: AHRI Type HRCU-A-CB with integrated furnace and centrally ducted configuration. Heat pump maintenance capacity (max 5°F/-15°C capacity divided by rated 47°F/8°C capacity) less than 80% - non cold climate heat pump.

**Cold Climate Heat Pump**: AHRI Type HRCU-A-CB and HMSV-A-CB AHRI type with centrally ducted configuration and maintenance capacity (max 5°F/-15°C capacity divided by rated 47°F/8°C capacity) greater than 80% - cold climate heat pump.

**Non-Cold Climate Heat Pump**: AHRI Type HRCU-A-CB and HMSV-A-CB AHRI type with centrally ducted configuration and maintenance capacity (max 5°F/-15°C capacity divided by rated 47°F/8°C capacity) less than 80%.

The supplemental heating system types considered are as follows:

Hybrid Heating Heat Pump Coil with Existing Furnace: Natural gas 90% AFUE. Hybrid Heating Heat Pump with New Furnace: Natural gas 95% AFUE Cold Climate Heat Pump: Electrical resistance Non-Cold Climate Heat Pump: Electrical resistance

Note the hybrid heat pump performance is not the same between the two configurations. Table 1 includes the different performance metrics used for each system configuration, which are based on the market performance from the NEEP database. The coil only heat pumps that are installed with existing furnaces and new hybrid systems where the heat pump is sold integrated with the furnace have different average performances, which are reflected in this analysis.

Performance curves were generated for capacities and efficiencies at maximum and rated conditions (performance reported at 8°C, -8°C, and -15°C) for each of the four heat pump configurations, see the "Curve Data" tab in the spreadsheet model for details. Capacity and efficiency curves in combination with additional input criteria are used to extrapolate system performance metrics at ambient temperatures ranging from 16°C to -34°C (the lowest temperature experienced across the four climate locations). Additional input criteria include sizing ratios, heating load profile, heat pump efficiency, furnace efficiency, capacity, airflow rates, and fan power. In addition to capacity and efficiency curves, a defrost performance curve is also used to account for negative performance impacts attributed to defrost mode during operation below 4°C<sup>2</sup>. The heat pump efficiencies and sizing ratios defined in Table 1 were derived from the NEEP database with the remaining fields reflecting standard performance values.

<sup>&</sup>lt;sup>1</sup> Supplemental heating refers to heating that occurs in tandem with heat pump heating whereas backup heating refers to a heating source that meets 100% of the heating load without the heat pump running.

<sup>&</sup>lt;sup>2</sup> Winkler, Jon. Laboratory Test Report for Fujitsu 12RLS and Mitsubishi FE12NA Mini-Split Heat Pumps.

System Configuration	Heat Pump COP at Rated Capacity at 47°F/8° <sup>(2)</sup> C	Heat Pump COP at Max Capacity at 47°F/8°C <sup>(2)</sup>	Heat Pump Max Capacity Sizing Ratio <sup>1</sup>	Supplemental Efficiency	Fan Power (W/Ton)	Lockout Temp (C°) <sup>(3)</sup>
Hybrid Heating Heat Pump Coil with Existing Furnace	3.4	3.1	1.08	90% AFUE	90	-18
Hybrid Heating Heat Pump Coil with New Furnace	4.0	3.8	1.08	95% AFUE	90	-18
Cold Climate Heat Pump	4.3	4.0	1.17	1 COP	90	-26
Non-Cold Climate Heat Pump	4.0	3.7	1.11	1 COP	90	-18

Table 1: Heat Dump Input Criteria

(1) Modern heat pumps are often variable capacity equipped with variable speed compressors. The rating performance values reflect the performance at rated conditions, but variable speed equipment is capable of modulating capacity beyond the rated values. The "Max" values in Table 1 are performance values achieved when the variable speed compressor is running at maximum speed.

(2) The efficiency values shown in Table 1 are consistent for all load sizes for each of the configurations

(3) The minimum temperature the heat pump can operate before the compressor shuts off

Heat pump controls were modeled based on smart controllers that automatically enable supplemental heating based on available capacity. A dynamic crossover strategy optimized for lowest operational cost is used to produce the results in this analysis where the supplemental heating is engaged when the heat pump heating cannot satisfy the heating load. If smart controllers were not used the temperature at which the hybrid heating systems switch from heat pump heating to furnace heating would be set to a fixed temperature by the HVAC contractor during installation. The most cost-effective switchover temperature will vary depending on utility rates, equipment performance, and load conditions and can vary home by home. HVAC contractors typically don't have access to the information required to determine the optimal switchover temperature and often use the same conservative (higher) switchover temperature for all homes. This results in longer furnace runtimes and minimizes the potential benefit of the heat pumps.

#### **System Sizing**

The results of this analysis include the performance of each heat pump configuration run at three different heating loads, 30,000 Btu/hr (2.5 tons), 48,000 Btu/hr (4 tons), and 60,000 Btu/hr (5 tons). These load sizes reflect low, medium, and large load conditions characterizing the full residential housing stock from small townhouses to large single family detached homes. The Canmet Air-Source Heat Pump Sizing and Selection Guide was used to determine the heating capacity for each heat pump configuration at the different load sizes -2.5, 4, and 5 tons<sup>3</sup>. Different sizing guideline options were used for the different system configurations based on the supplemental/backup heating sources and heat pump prioritization.

Canmet guidelines option 4B, which utilizes a balanced heating and cooling approach, was used for the hybrid heating configurations resulting in a nominal heat pump heating capacity estimated at half a ton less than the design load. This analysis uses a simplified approach of a consistent half ton capacity reduction for all the system load sizes rather than changing the capacity reduction relative to load. Heat pump operation is prioritized during mild to moderate heating conditions while natural gas is used as the primary heating source during the coldest periods.

The non-cold climate heat pump configuration utilized sizing option 4C, which has an emphasis on heating. This sizing strategy resulted in a nominal heat pump capacity equal to the heating load. Electric resistance heating will supplement the heat pump with additional heating capacity during periods where the heating load cannot be met with heat pump heating alone.

For the cold climate heat pump configuration option 4D was used which sizes heating capacity based on the heating load at design conditions. This resulted in a nominal heat pump capacity half a ton larger than the heating load to account for the reduced capacity at colder temperatures ensuring nearly the entire heating load is met with heat pump and minimal electric resistance supplemental heating is used.

<sup>&</sup>lt;sup>3</sup> <u>https://natural-resources.canada.ca/maps-tools-and-publications/tools/modelling-tools/toolkit-for-air-source-heat-pump-sizing-and-selection/23558</u>

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.28, Attachment 1, Page 4 of 21 Memorandum to Enbridge May 19<sup>th</sup>, 2023 Page 4 of 21 **Load Profiles** 

Whole building energy modeling was performed using the EnergyPlus simulation engine with US Department of Energy single family residential prototype energy models to generate hourly heating load profiles for each of the following weather locations: Toronto, Ottawa, Windsor, and Thunder Bay. These locations capture the range of heating load profiles found throughout Ontario. In order of lowest heating load to highest heating load the four weather locations are organized as follows: Windsor, Toronto, Ottawa, and Thunder Bay. See the "Weather Profiles" tab in the spreadsheet model for heating load profile details. TMYx weather files were used to simulate the energy models for each of the locations. TMYx weather files include hourly data and are based on recent 15-year weather data, which more accurately reflects current and changing weather profiles than traditional TMY weather files made up of 30 plus years of historic weather data.

The heating load profiles are used with the heat pump performance curves to calculate the hourly heating load, available heat pump heating capacity, heat pump heating efficiency, and heat pump supplemental heating coil run times. The peak demand is calculated as the maximum single hour consumption and the annual consumption is the combined total of all the hours of operation.

# **Utility Costs**

Utility costs are based on Enbridge natural gas rates (EGD Rate 1) and Toronto time of use (TOU) electricity rates (as of May 2023), which were used to calculate the operational costs for each system configuration.<sup>4,5</sup> No assumptions have been made about forward price curves and utility rates for either natural gas or electricity, including increases in carbon costs. Note, utility costs can readily be updated in the "Utility Data" tab in the spreadsheet model to assess the impact of rate changes. While utility costs vary by region, the relative cost difference between electricity and natural gas is similar and regional differences in utility costs have a minimal impact on overall results.

rabio 2. otinty r rioling								
	Electricity							
Electricity TOU Price Periods	Winter (Nov 1- Apr 30)	Prices (c/kWh)						
Off-Peak	Weekdays 7pm-7am, Weekends All Day	Weekdays 7pm-7am, Weekends All Day	10.0					
Mid-Peak	Weekdays 11am-5pm	Weekdays 7am-11am and 5pm - 7am	12.8					
On-Peak	Weekdays 7am - 11am and 5pm-7pm	Weekdays 11am-5pm	17.8					
Natural Gas Rate (\$/m3)								
	0.42							

# **Table 2: Utility Pricing**

# **Carbon Emissions**

Marginal carbon emission rates for electricity generation are based on the Power Advisory Report "Marginal Greenhouse Gas Emission Factors for Ontario Electricity Generation and Consumption"<sup>6</sup> and natural gas carbon emission rates are based on the carbon content of the fuel, which is equivalent to 1.93 kg of CO<sub>2</sub>e per cubic meter of natural gas.<sup>7</sup>

<sup>4</sup> <u>https://www.enbridgegas.com/residential/my-account/rates?gad=1&gclid=CjwKCAjwge2iBhBBEiwAfXDBR8ZtTx-o5AMck7eqhNsGF09TgHkGhWpLhwqPabwVtySQ8WVM95\_NHhoCvdsQAvD\_BwE</u>

<sup>7</sup> Environment and Climate Change Canada. (2022, April 14). 2022 National Inventory Report 1990-2020: Greenhouse Gas Sources and Sinks in Canada. Part 2. Table A6.1-1 and Table A6.1-3. https://unfccc.int/documents/461919

<sup>&</sup>lt;sup>5</sup> https://www.torontohydro.com/for-home/rates

<sup>&</sup>lt;sup>6</sup>http://consortia.myescenter.com/CHP/Power\_Advisory\_Report\_on\_Marginal\_Emission\_Factors\_for\_Ontario\_El ectricity\_Generation\_Oct2020.pdf

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# Results

Table 3 through Table 18 show performance summary results including total energy consumption, peak demand, energy cost, and carbon emissions for all four scenarios at each location and for each heating load.<sup>8</sup>

#### **Key Findings**

- The cold climate heat pump configuration emits the least CO<sub>2</sub> emissions of all system configurations regardless of location or load size.
- The cold climate heat pump has the best cost performance in Windsor (most mild climate) while the hybrid heating heat pump with new furnace is the cheapest to operate in Toronto, Ottawa, and Thunder Bay.
- Increase in electric peak demand is lower for hybrid heating systems with furnace backup than all electric system configurations with electric resistance supplemental heating.

Natural gas is approximately three times cheaper than electricity on a cost per unit energy basis, however the high efficiency of heat pump systems overcome the fuel pricing disparity resulting in net operational cost saving when using a heat pump in a moderate climate (COP> 3) compared to a furnace. While heat pump heating outperforms a furnace when operating at nameplate efficiencies the physical limitations of heat pump heating yields reduced efficiency and capacity at lower ambient temperatures ultimately requiring a supplemental heating source to satisfy the heating load. Note in Tables 7-18 the cold climate annual COP is often lower than the non-cold climate heat pump option because it spends more time running at lower temperatures with a lower efficiency. In contrast furnace efficiency is not impacted by ambient air temperature and operates at a consistent efficiency.

Between electric resistance (COP of 1) and natural gas furnace backup heating options, the furnace is more cost effective than electric resistance heating. Regions that are subject to extreme cold will experience lower average heat pump efficiencies and rely increasingly on supplemental heating sources compared to systems operating in more moderate climates. This means the system configurations that maximize heat pump operation and minimize electric resistance supplemental heating will have the best cost performance, which is supported in the modeling outputs shown below. The cold climate heat pump is the most cost-effective all electric option and the most cost effective overall for Windsor, the mildest simulated location, where no supplemental electric resistance heating is used. In Windsor both all-electric heat pump configurations. The hybrid heat pump with a high efficiency furnace is the most cost-effective option for all other simulated weather locations - Toronto, Ottawa, and Thunder Bay, which experience colder temperatures and have a higher heating load requiring more supplemental heating resulting in lower average heat pump performance.

# **Additional Considerations**

In addition to thermal performance and operational cost there are several practical issues that must be considered when electrifying existing fossil fuel HVAC systems. Additional infrastructure updates may also be required within the home, and the costs associated with addressing any of these issues can vary widely based on existing conditions and should be considered for all electrification endeavors.

<sup>&</sup>lt;sup>8</sup> Costs shown in results tables reflect consumption-based costs and do not include monthly fixed costs. It is assumed that gas and electric service will remain in use at all sites for all system configurations.

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#### **Homeowner Considerations**

- Cost & Equipment Life: First costs for a whole home heat pump system can range from CAD \$10,000-\$20,000<sup>9</sup>. and are typically two to four times as expensive as a conventional furnace. The expected equipment lifetime for heat pumps (15 years) is also shorter than traditional furnaces (20 years).<sup>10</sup>
- Electric service: The electric service to the home must be able to accommodate the additional load of an all-electric heating system. Many existing homes have 60–100 amp service, which will not be able to support electric heating, especially if other end-uses such as domestic hot water or cooking ranges are also being converted to electric. Upgrading service capacity to 200 amps will typically cost CAD \$3,000-\$5,000 and depending on the home vintage and existing conditions additional wiring upgrades beyond the electric panel may also be necessary.<sup>9</sup>
- Existing HVAC infrastructure: It is important to consider the distribution system effects when installing a heat pump with existing ductwork. The duct size, static pressure, duct leakage, duct location (conditioned vs unconditioned) should all be considered during system selection. For example, fossil fuel furnaces traditionally have a higher temperature rise than heat pumps, thus requiring smaller ductwork with less airflow than needed to run a heat pump. If the duct conditions are not properly accounted for the heat pump could have inadequate airflow resulting in thermal comfort and/or maintenance issues.

#### Utility Considerations

• Peak demand period: Typically, electric utilities experience peak demand during summer months driven by HVAC cooling operation. Electric heat pumps in cold climates often have a higher heating capacity than cooling capacity and subsequently have a higher peak demand when operating in heating mode compared to cooling. This can shift the peak demand period from the summer to the winter when fossil fuel heating equipment is replaced with electric heat pumps. Conversely, the installation of new high performance heat pump equipment will likely reduce summer peak demand due to increased equipment efficiency compared to existing cooling equipment.

<sup>&</sup>lt;sup>9</sup> https://www.electricity.ca/knowledge-centre/journal/we-are-so-close-to-affording-zero-carbon-electric-home-heating/

<sup>&</sup>lt;sup>10</sup>https://remdb.nrel.gov/about.php

Table 3 shows the annual peak hourly electric demand (kW) for each system configuration.

	Max Operational	kw (Compre	ssor and F	(uxillary)	
	Scenario	Toronto	Ottawa	Windsor	Thunder Bay
	Small 30,000 Btuh (2.5 Tons)	0.2	0.2	0.2	0.2
New Furnace (Fan	Medium 48,000 Btuh (4 Tons)	0.4	0.4	0.4	0.4
Olliy)	Large 60,000 Btuh (5 Tons)	0.4	0.4	0.4	0.4
Hybrid Heating Heat	Small 30,000 Btuh (2.5 Tons)	2.2	2.2	2.2	2.1
Pump Coil with	Medium 48,000 Btuh (4 Tons)	3.8	3.6	4.0	3.8
Existing Furnace	Large 60,000 Btuh (5 Tons)         0.4         0.4           Heating Heat         Small 30,000 Btuh (2.5 Tons)         2.2         2.2           Coil with         Medium 48,000 Btuh (4 Tons)         3.8         3.6           Ing Furnace         Large 60,000 Btuh (5 Tons)         4.7         4.6           Heating Heat         Small 30,000 Btuh (2.5 Tons)         2.4         2.4           Image 60,000 Btuh (2.5 Tons)         2.4         2.4         2.4           Image 60,000 Btuh (2.5 Tons)         4.0         3.2         3.2           Image 60,000 Btuh (5 Tons)         4.1         4.0         3.2           Image 60,000 Btuh (2.5 Tons)         4.1         4.0         3.2	5.0	4.1		
Hybrid Heating Heat	Small 30,000 Btuh (2.5 Tons)	2.4	2.4	2.4	1.6
Pump Coil with New	Medium 48,000 Btuh (4 Tons)	4.0	3.2	4.2	4.0
Furnace	Large 60,000 Btuh (5 Tons)	arioTorontoOttawaWindsorThu Btuh (2.5 Tons) $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ Btuh (4 Tons) $0.4$ $0.4$ $0.4$ $0.4$ $0.4$ $3tuh (5 Tons)$ $0.4$ $0.4$ $0.4$ $0.4$ $3tuh (5 Tons)$ $2.2$ $2.2$ $2.2$ $2.2$ $Btuh (4 Tons)$ $3.8$ $3.6$ $4.0$ $3.3$ $3tuh (5 Tons)$ $4.7$ $4.6$ $5.0$ $4.4$ $tuh (2.5 Tons)$ $2.4$ $2.4$ $2.4$ $1.4$ $Btuh (4 Tons)$ $4.0$ $3.2$ $4.2$ $4.2$ $4tuh (5 Tons)$ $4.1$ $4.0$ $5.2$ $3.3$ $tuh (5 Tons)$ $4.4$ $8.6$ $3.7$ $8.6$ $Btuh (4 Tons)$ $7.2$ $13.7$ $6.0$ $7.7$ $3tuh (5 Tons)$ $8.0$ $8.6$ $5.1$ $8.6$ $Btuh (4 Tons)$ $12.9$ $13.7$ $8.2$ $1.7$ $3tuh (5 Tons)$ $16.1$ $17.1$ $10.2$ $1.7$	3.3		
	Small 30,000 Btuh (2.5 Tons)	rioTorontoOttawaWindsorHandborBayJh (2.5 Tons) $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ BayBayStuh (4 Tons) $0.4$ $0.4$ $0.4$ $0.4$ $0.4$ tuh (5 Tons) $0.4$ $0.4$ $0.4$ $0.4$ $0.4$ Jh (2.5 Tons) $2.2$ $2.2$ $2.2$ $2.2$ $2.2$ Bay $2.2$ $2.2$ $2.2$ $2.2$ $2.2$ Bay $3.8$ $3.6$ $4.0$ $3.8$ tuh (5 Tons) $4.7$ $4.6$ $5.0$ $4.1$ Jh (2.5 Tons) $2.4$ $2.4$ $2.4$ $1.6$ Bay $4.0$ $3.2$ $4.2$ $4.0$ tuh (5 Tons) $4.1$ $4.0$ $5.2$ $3.3$ uh (2.5 Tons) $4.4$ $8.6$ $3.7$ $8.6$ Bay $9.1$ $17.1$ $7.5$ $17.1$ uh (5 Tons) $9.1$ $17.1$ $7.5$ $17.1$ uh (2.5 Tons) $8.0$ $8.6$ $5.1$ $8.6$ Bay $8.6$ $5.1$ $8.6$ $5.1$ Bay $16.1$ $17.1$ $10.2$ $17.1$	8.6		
Cold Climate Heat	Medium 48,000 Btuh (4 Tons)         0.4         0.4         0.4           Vorid Heating Heat Pump Coil with Existing Furnace         Small 30,000 Btuh (2.5 Tons)         2.2         2.2         2.2           Vbrid Heating Heat Pump Coil with Existing Furnace         Medium 48,000 Btuh (2.5 Tons)         2.2         2.2         2.2           Vbrid Heating Heat Pump Coil with Existing Furnace         Medium 48,000 Btuh (4 Tons)         3.8         3.6         4.0           /brid Heating Heat Imp Coil with New Furnace         Small 30,000 Btuh (5 Tons)         4.7         4.6         5.0           /brid Heating Heat Imp Coil with New Furnace         Small 30,000 Btuh (2.5 Tons)         2.4         2.4         2.4           Cold Climate Heat Pump         Small 30,000 Btuh (2.5 Tons)         4.1         4.0         5.2           Small 30,000 Btuh (2.5 Tons)         4.4         8.6         3.7           Medium 48,000 Btuh (4 Tons)         7.2         13.7         6.0           Large 60,000 Btuh (5 Tons)         9.1         17.1         7.5           Small 30,000 Btuh (2.5 Tons)         8.0         8.6         5.1           Medium 48,000 Btuh (4 Tons)         12.9         13.7         8.2           Large 60,000 Btuh (5 Tons)         16.1         17.1         10.2	7.2			
Fump		7.5	17.1		
	Small 30,000 Btuh (2.5 Tons)	8.0	8.6	5.1	8.6
Non-Cold Climate	Medium 48,000 Btuh (4 Tons)	12.9	13.7	8.2	12.9
neat rump	Large 60,000 Btuh (5 Tons)	16.1	17.1	10.2	17.1

# Table 3: Max Annual Electric Peak kW (Compressor and Supplemental Heating) Max Operational kW (Compressor and Auxiliary)

Table 4 shows the peak hourly electric demand during the utility peak period defined as 7am – 9am Monday through Friday. Note the values in Table 4 are slightly smaller than Table 3 as the annual system peak demand does not always fall within the utility peak demand period.

Table 4: Ma	ax Peak	Period kW	(Com	pressor	and Sup	plement	al Heati	ng)
		Max	Peak	Period k	W (Com	pressor	and Au	xiliary)

			C3301 and	r Auxiliar y j	
	Scenario	Toronto	Ottawa	Windsor	Thunder Bay
	Small 30,000 Btuh (2.5 Tons)	0.2	0.2	0.2	0.2
New Furnace (Fan Only)	Medium 48,000 Btuh (4 Tons)	0.4	0.4	0.4	0.4
Olliy)	Large 60,000 Btuh (5 Tons)	0.4	0.4	0.4	0.4
Hybrid Heating Heat Pump Coil with Existing Furnace	Small 30,000 Btuh (2.5 Tons)	2.1	2.1	2.2	1.8
	Medium 48,000 Btuh (4 Tons)	3.8	3.6	3.9	3.8
	Large 60,000 Btuh (5 Tons)	4.7	4.5	4.9	3.7
Hybrid Heating Heat Pump Coil with New	Small 30,000 Btuh (2.5 Tons)	2.3	1.8	2.3	1.5
	Medium 48,000 Btuh (4 Tons)	3.0	2.9	3.1	3.0
Furnace	Large 60,000 Btuh (5 Tons)	enarioTorontoOttawaWindsorHunder Bay0 Btuh (2.5 Tons)0.20.20.20.200 Btuh (4 Tons)0.40.40.40.400 Btuh (5 Tons)0.40.40.40.40 Btuh (2.5 Tons)2.12.12.21.800 Btuh (2.5 Tons)2.12.12.21.800 Btuh (5 Tons)3.83.63.93.800 Btuh (5 Tons)4.74.54.93.70 Btuh (2.5 Tons)2.31.82.31.500 Btuh (5 Tons)3.02.93.13.000 Btuh (5 Tons)3.73.65.22.90 Btuh (5 Tons)3.73.65.22.90 Btuh (2.5 Tons)3.98.52.57.600 Btuh (5 Tons)7.716.95.015.30 Btuh (5 Tons)7.716.95.015.30 Btuh (2.5 Tons)6.28.53.17.600 Btuh (4 Tons)9.913.54.99.900 Btuh (5 Tons)12.416.96.115.3	2.9		
	Small 30,000 Btuh (2.5 Tons)	3.9	8.5	2.5	7.6
Cold Climate Heat	Medium 48,000 Btuh (4 Tons)	6.2	13.5	4.0	6.2
Pump	Large 60,000 Btuh (5 Tons)	7.7	16.9	5.0	15.3
Non Cold Climate	Small 30,000 Btuh (2.5 Tons)	6.2	8.5	3.1	7.6
Non-Cold Climate	Medium 48,000 Btuh (4 Tons)	30,000 Btuh (2.5 Tons)         0.2         0.2         0.2           n 48,000 Btuh (4 Tons)         0.4         0.4         0.4           60,000 Btuh (5 Tons)         0.4         0.4         0.4           30,000 Btuh (2.5 Tons)         2.1         2.1         2.2           n 48,000 Btuh (2.5 Tons)         2.1         2.1         2.2           n 48,000 Btuh (2.5 Tons)         3.8         3.6         3.9           60,000 Btuh (5 Tons)         4.7         4.5         4.9           30,000 Btuh (2.5 Tons)         2.3         1.8         2.3           n 48,000 Btuh (4 Tons)         3.0         2.9         3.1           60,000 Btuh (5 Tons)         3.7         3.6         5.2           30,000 Btuh (5 Tons)         3.7         3.6         5.2           30,000 Btuh (2.5 Tons)         3.9         8.5         2.5           n 48,000 Btuh (4 Tons)         6.2         13.5         4.0           60,000 Btuh (5 Tons)         7.7         16.9         5.0           30,000 Btuh (2.5 Tons)         6.2         8.5         3.1           n 48,000 Btuh (4 Tons)         9.9         13.5         4.9           60,000 Btuh (5 Tons)         12.4         16.9	9.9		
neat rump	Large 60,000 Btuh (5 Tons)	12.4	16.9	6.1	15.3



Table 5 and Table 6 include performance summaries for annual cost and carbon emissions. Tables 7 through 18 include the summary outputs for each system configuration and load size at each weather location.

		Annual Heating Operational Cost (\$)				Annu	al Heating	g Cost Savi	ngs (\$)
	Scenario	Toronto	Ottawa	Windsor	Thunder Bay	Toronto	Ottawa	Windsor	Thunder Bay
Beeeline, Code 05%	Small (2.5 Tons)	\$484	\$565	\$483	\$623				
Baseline: Code 95%	Medium (4 Tons)	\$775	\$904	\$772	\$997				
	Large (5 Tons)	\$969	\$1,130	\$965	\$1,246				
Hybrid Heating Heat	Small (2.5 Tons)	\$396	\$484	\$379	\$549	\$88	\$81	\$104	\$74
Pump Coil with Existing Furnace	Medium (4 Tons)	\$632	\$774	\$602	\$878	\$143	\$130	\$170	\$118
	Large (5 Tons)	\$790	\$967	\$751	\$1,098	\$179	\$163	\$214	\$148
Hybrid Heating Heat Pump Coil with New	Small (2.5 Tons)	\$361	\$445	\$343	\$511	\$124	\$120	\$140	\$112
	Medium (4 Tons)	\$577	\$712	\$548	\$818	\$198	\$192	\$225	\$178
Furnace	Large (5 Tons)	\$721	\$890	\$685	\$1,022	\$248	\$240	\$281	\$224
Cold Climate Llost	Small (2.5 Tons)	\$371	\$486	\$335	\$607	\$114	\$79	\$148	\$16
Cold Climate Heat	Medium (4 Tons)	\$594	\$779	\$535	\$973	\$181	\$125	\$237	\$24
Fullp	Large (5 Tons)	\$743	\$974	\$669	\$1,217	\$226	\$156	\$296	\$29
Non Cold Climate	Small (2.5 Tons)	\$386	\$562	\$339	\$745	\$98	\$3	\$143	-\$122
Heat Pump	Medium (4 Tons)	\$618	\$900	\$543	\$1,192	\$157	\$4	\$229	-\$195
neatrump	Large (5 Tons)	\$773	\$1,125	\$679	\$1,490	\$196	\$5	\$287	-\$244

Table 5: Total Cost Savings by System Configuration and Location

Greatest Savings for 2.5 Ton Load Greatest Savings for 4 Ton Load Greatest Savings for 5 Ton Load

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		Annual Heating Emissions (kgCO2e)				Annual Heating Emissions Savings (kgCO2e)				
	Scenario	Toronto	Ottawa	Windsor	Thunder Bay	Toronto	Ottawa	Windsor	Thunder Bay	
	Small (2.5 Tons)	2,033	2,370	2,026	2,613					
Baseline: Code 95%	Medium (4 Tons)	3,253	3,792	3,242	4,181					
	Large (5 Tons)	4,066	4,739	4,052	5,226					
Hybrid Heating Heat	Small (2.5 Tons)	1,253	1,646	1,138	2,022	780	724	888	590	
Pump Coil with	Medium (4 Tons)	1,990	2,628	1,768	3,235	1263	1164	1474	945	
Existing Furnace	Large (5 Tons)	2,486	3,284	2,197	4,044	1580	1456	1856	1182	
Hybrid Heating Heat	Small (2.5 Tons)	1,140	1,519	999	1,889	893	851	1028	723	
Pump Coil with New	Medium (4 Tons)	1,823	2,429	1,591	3,023	1430	1362	1651	1158	
Furnace	Large (5 Tons)	2,279	3,037	1,987	3,779	1788	1703	2065	1447	
Cold Climate Heat	Small (2.5 Tons)	1,018	1,321	918	1,652	1016	1049	1108	961	
Pump	Medium (4 Tons)	1,630	2,117	1,469	2,649	1623	1674	1772	1531	
	Large (5 Tons)	2,038	2,649	1,837	3,314	2028	2090	2216	1912	
Non Cold Climate	Small (2.5 Tons)	1,060	1,528	932	2,029	973	842	1095	584	
Heat Pump	Medium (4 Tons)	1,697	2,444	1,491	3,246	1557	1347	1751	935	
	Large (5 Tons)	2,121	3,055	1,863	4,057	1946	1684	2189	1168	

#### Table 6: Total Emissions and Total Emissions Savings by System Configuration and Location

Greatest Savings for 2.5 Ton Load Greatest Savings for 4 Ton Load Greatest Savings for 5 Ton Load Memorandum to Enbridge May 19<sup>th</sup>, 2023 Page 10 of 21

	Table 7: Results Table for Toronto with a 2.5 Ton Heating Load											
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO₂e)			
	Furnace Fan				30	263		0.2	82			
Baseline: Code 95% Furnace	New 95% AFUE Furnace	4,798	33,658,351	100%	454	1,010	0.95	0.9	1,951			
	Total				484				2,033			
Hybrid Heating	Heat Pump	4,370	26,917,219	80%	300	2,624	3.0	2.2	839			
Heat Pump Coil with Existing	Backup Furnace	429	6,741,133	20%	96	214	0.9	0.9	414			
Furnace	Total	4,799	33,658,351	100%	396				1,253			
	Heat Pump	4,390	27,273,455	81%	274	2,405	3.3	2.4	769			
Heat Pump Coil	Backup Furnace	409	6,384,897	19%	87	192	0.95	0.9	371			
	Total	4,799	33,658,351	100%	361				1,140			
	Heat Pump	4,799	33,658,351	100%	371	3,243	3.0	4.4				
Cold Climate Heat Pump	Supplemental Electric Resistance	0	0	0%	0	0	1.0	0.0	1,018			
	Total	4,799	33,658,351	100%	371	3,243	3.0	4.4				
	Heat Pump	4,732	33,139,994	98%	369	3,226	3.0	2.9				
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	67	518,357	2%	17	152	1.0	7.8	1,060			
	Total	4,799	33,658,351	100%	386	3,378	2.9	8.0				

Table 7: Results Table for Toronto with a 2.5 Ton Heating Load

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Table 8: Results Table for Toronto with a 4 Ton Heating Load											
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO <sub>2</sub> e)		
	Furnace Fan				48	421		0.4	132		
Baseline: Code 95% Furnace	New 95% AFUE Furnace	4,798	53,853,362	100%	727	1,616	0.95	1.4	3,121		
	Total				775				3,253		
Hybrid Heating	Heat Pump	4,387	43,543,204	81%	485	4,250	3.0	3.8	1,357		
Heat Pump Coil with Existing	Backup Furnace	412	10,310,158	19%	147	328	0.9	1.4	633		
Furnace	Total	4,799	53,853,362	100%	632				1,990		
	Heat Pump	4,391	43,668,680	81%	439	3,850	3.3	4.0	1,231		
Hybrid Heating Heat Pump Coil	Backup Furnace	408	10,184,682	19%	138	307	0.95	1.4	592		
	Total	4,799	53,853,362	100%	577				1,823		
	Heat Pump	4,798	53,852,168	100%	594	5,194	3.0	6.8			
Cold Climate Heat Pump	Supplemental Electric Resistance	1	1,194	0%	0	0	1.0	0.3	1,630		
	Total	4,799	53,853,362	100%	594	5,195	3.0	7.2			
	Heat Pump	4,732	53,023,991	98%	591	5,162	3.0	4.6			
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	67	829,372	2%	28	243	1.0	12.5	1,697		
	Total	4,799	53,853,362	100%	618	5,405	2.9	12.9			

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Table 9: Results Table for Toronto with a 5 Ton Heating Load												
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO <sub>2</sub> e)			
	Furnace Fan				60	526		0.4	165			
Baseline: Code 95% Furnace	New 95% AFUE Furnace	4,798	67,316,703	100%	909	2,020	0.95	1.7	3,902			
	Total				969				4,066			
Hybrid Heating	Heat Pump	4,387	54,429,005	81%	607	5,310	3.0	4.7	1,695			
Heat Pump Coil with Existing	Backup Furnace	412	12,887,698	19%	184	409	0.9	1.8	791			
Furnace	Total	4,799	67,316,703	100%	790				2,486			
	Heat Pump	4,391	54,585,850	81%	549	4,811	3.3	4.1	1,538			
Hybrid Heating Heat Pump Coil	Backup Furnace	408	12,730,853	19%	173	383	0.95	1.7	740			
	Total	4,799	67,316,703	100%	721				2,279			
	Heat Pump	4,798	67,314,055	100%	743	6,495	3.0	8.4				
Cold Climate Heat Pump	Supplemental Electric Resistance	1	2,648	0%	0	1	1.0	0.8	2,038			
	Total	4,799	67,316,703	100%	743	6,496	3.0	9.1				
	Heat Pump	4,732	66,279,988	98%	738	6,452	3.0	5.7				
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	67	1,036,715	2%	35	304	1.0	15.7	2,121			
	Total	4,799	67,316,703	100%	773	6,756	2.9	16.1				

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	Table 10: Results Table for Ottawa with a 2.5 Ton Heating Load											
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO₂e)			
	Furnace Fan				35	306		0.2	96			
Baseline: Code 95% Furnace	New 95% AFUE Furnace	5,089	39,230,702	100%	530	1,177	0.95	0.9	2,274			
	Total				565				2,370			
Hybrid Heating	Heat Pump	4,229	26,119,299	67%	298	2,598	2.9	2.2	842			
Heat Pump Coil with Existing	Backup Furnace	861	13,111,402	33%	186	416	0.9	0.9	803			
Furnace	Total	5,090	39,230,702	100%	484				1,646			
	Heat Pump	4,233	26,190,562	67%	268	2,341	3.3	2.4	762			
Hybrid Heating Heat Pump Coil	Backup Furnace	857	13,040,140	33%	176	392	0.95	0.9	757			
	Total	5,090	39,230,702	100%	445				1,519			
	Heat Pump	5,064	38,991,748	99%	477	4,142	2.8	4.3				
Cold Climate Heat Pump	Supplemental Electric Resistance	26	238,953	1%	9	70	1.0	8.3	1,321			
	Total	5,090	39,230,702	100%	486	4,212	2.7	8.6				
	Heat Pump	4,825	34,804,326	89%	406	3,537	2.9	2.9				
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	265	4,426,376	11%	157	1,297	1.0	8.3	1,528			
	Total	5,090	39,230,702	100%	562	4,834	2.4	8.6				

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Table 11: Results Table for Ottawa with a 4 Ton Heating Load											
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO₂e)		
	Furnace Fan				56	490		0.4	153		
Baseline: Code 95% Furnace	New 95% AFUE Furnace	5,089	62,769,123	100%	848	1,883	0.95	1.4	3,638		
	Total				904				3,792		
Hybrid Heating	Heat Pump	4,232	41,873,877	67%	477	4,157	3.0	3.6	1,347		
Heat Pump Coil with Existing	Backup Furnace	858	20,895,245	33%	297	663	0.9	1.4	1,280		
Furnace	Total	5,090	62,769,123	100%	774				2,628		
	Heat Pump	4,233	41,904,899	67%	430	3,744	3.3	3.2	1,218		
Hybrid Heating Heat Pump Coil	Backup Furnace	857	20,864,223	33%	282	627	0.95	1.4	1,211		
	Total	5,090	62,769,123	100%	712				2,429		
	Heat Pump	5,061	62,343,809	99%	762	6,625	2.8	6.6			
Cold Climate Heat Pump	Supplemental Electric Resistance	29	425,314	1%	16	125	1.0	13.4	2,117		
	Total	5,090	62,769,123	100%	779	6,750	2.7	13.7			
	Heat Pump	4,825	55,686,921	89%	649	5,660	2.9	4.6			
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	265	7,082,202	11%	251	2,074	1.0	13.4	2,444		
	Total	5,090	62,769,123	100%	900	7,734	2.4	13.7			

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			Results Table IO			ating Load			
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO₂e)
	Furnace Fan				70	613		0.4	192
Baseline: Code 95% Furnace	New 95% AFUE Furnace	5,089	78,461,403	100%	1,059	2,354	0.95	1.7	4,548
	Total				1,130				4,739
Hybrid Heating	Heat Pump	4,232	52,342,346	67%	595	5,192	3.0	4.6	1,683
Heat Pump Coil with Existing	Backup Furnace	858	26,119,057	33%	371	828	0.9	1.8	1,600
Furnace	Total	5,090	78,461,403	100%	967				3,284
	Heat Pump	4,233	52,381,124	67%	537	4,680	3.3	4.0	1,523
Heat Pump Coil	Backup Furnace	857	26,080,279	33%	353	784	0.95	1.7	1,514
	Total	5,090	78,461,403	100%	890				3,037
	Heat Pump	5,057	77,908,019	99%	953	8,283	2.8	8.2	
Cold Climate Heat Pump	Supplemental Electric Resistance	33	553,384	1%	21	162	1.0	16.7	2,649
	Total	5,090	78,461,403	100%	974	8,445	2.7	17.1	
	Heat Pump	4,825	69,608,651	89%	811	7,074	2.9	5.7	
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	265	8,852,752	11%	314	2,593	1.0	16.7	3,055
-	Total	5,090	78,461,403	100%	1,125	9,668	2.4	17.1	

Table 12: Results Table for Ottawa with a 5 Ton Heating Load

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			Regulta Tuble Ioi	Willugol Wil					
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO <sub>2</sub> e)
	Furnace Fan				30	262		0.2	82
Baseline: Code 95% Furnace	New 95% AFUE Furnace	4,797	33,541,597	100%	453	1,006	0.95	0.9	1,944
	Total				483				2,026
Hybrid Heating	Heat Pump	4,578	30,413,997	91%	324	2,830	3.1	2.2	899
Heat Pump Coil with Existing	Backup Furnace	220	3,127,601	9%	55	123	0.9	0.9	238
Furnace	Total	4,798	33,541,597	100%	379				1,138
	Heat Pump	4,649	31,773,851	95%	309	2,693	3.5	2.4	852
Hybrid Heating Heat Pump Coil	Backup Furnace	149	1,767,746	5%	34	76	0.95	0.9	147
	Total	4,798	33,541,597	100%	343				999
	Heat Pump	4,798	33,541,597	100%	335	2,925	3.4	3.7	
Cold Climate Heat Pump	Supplemental Electric Resistance	0	0	0%	0	0	1.0	0.0	918
	Total	4,798	33,541,597	100%	335	2,925	3.4	3.7	
	Heat Pump	4,786	33,492,949	100%	338	2,954	3.3	2.9	
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	12	48,648	0%	1	14	1.0	2.2	932
	Total	4,798	33,541,597	100%	339	2,968	3.3	5.1	

 Table 13: Results Table for Windsor with a 2.5 Ton Heating Load

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Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO <sub>2</sub> e)
	Furnace Fan				48	419		0.4	131
Baseline: Code 95% Furnace	New 95% AFUE Furnace	4,797	53,666,556	100%	724	1,610	0.95	1.4	3,111
	Total				772				3,242
Hybrid Heating	Heat Pump	4,634	50,349,445	94%	538	4,712	3.1	4.0	1,490
Heat Pump Coil with Existing	Backup Furnace	164	3,317,111	6%	65	144	0.9	1.4	278
Furnace	Total	4,798	53,666,556	100%	602				1,768
Lubrid Heating	Heat Pump	4,653	50,982,158	95%	495	4,315	3.5	4.2	1,364
Heat Pump Coil	Backup Furnace	145	2,684,397	5%	53	117	0.95	1.4	227
	Total	4,798	53,666,556	100%	548				1,591
	Heat Pump	4,798	53,666,556	100%	535	4,680	3.4	6.0	
Cold Climate Heat Pump	Supplemental Electric Resistance	0	0	0%	0	0	1.0	0.0	1,469
	Total	4,798	53,666,556	100%	535	4,680	3.4	6.0	
	Heat Pump	4,786	53,588,719	100%	541	4,727	3.3	4.6	
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	12	77,837	0%	2	23	1.0	3.6	1,491
	Total	4,798	53,666,556	100%	543	4,749	3.3	8.2	

Table 14: Results Table for Windsor with a 4 Ton Heating Load

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Table 15: Results Table for Windsor with a 5 Ton Heating Load											
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO <sub>2</sub> e)		
	Furnace Fan				60	524		0.4	164		
Baseline: Code 95% Furnace	New 95% AFUE Furnace	4,797	67,083,195	100%	906	2,012	0.95	1.7	3,888		
	Total				965				4,052		
Hybrid Heating	Heat Pump	4,643	63,311,433	94%	676	5,922	3.1	5.0	1,872		
Heat Pump Coil with Existing	Backup Furnace	155	3,771,762	6%	75	168	0.9	1.8	325		
Furnace	Total	4,798	67,083,195	100%	751				2,197		
	Heat Pump	4,654	63,780,830	95%	620	5,398	3.5	5.2	1,707		
Heat Pump Coil	Backup Furnace	144	3,302,365	5%	65	145	0.95	1.7	280		
	Total	4,798	67,083,195	100%	685				1,987		
	Heat Pump	4,798	67,083,195	100%	669	5,850	3.4	7.5			
Cold Climate Heat Pump	Supplemental Electric Resistance	0	0	0%	0	0	1.0	0.0	1,837		
	Total	4,798	67,083,195	100%	669	5,850	3.4	7.5			
	Heat Pump	4,786	66,985,899	100%	676	5,908	3.3	5.7			
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	12	97,296	0%	3	28	1.0	4.4	1,863		
	Total	4,798	67,083,195	100%	679	5,937	3.3	10.2			

Table 15: Results Table for Windsor with a 5 Ton Heating Load

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Table 16: Results Table for Thunder Bay with a 2.5 Ton Heating Load												
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO₂e)			
	Furnace Fan				39	338		0.2	106			
Baseline: Code 95% Furnace	New 95% AFUE Furnace	5,720	43,257,475	100%	584	1,298	0.95	0.9	2,507			
	Total				623				2,613			
Hybrid Heating	Heat Pump	4,283	22,079,462	51%	249	2,176	3.0	2.1	727			
Heat Pump Coil with Existing	Backup Furnace	1,437	21,178,013	49%	301	671	0.9	0.9	1,296			
Furnace	Total	5,720	43,257,475	100%	549				2,022			
	Heat Pump	4,283	22,079,462	51%	225	1,967	3.3	1.6	662			
Hybrid Heating Heat Pump Coil	Backup Furnace	1,437	21,178,013	49%	286	635	0.95	0.9	1,228			
	Total	5,720	43,257,475	100%	511				1,889			
	Heat Pump	5,624	41,583,103	96%	551	4,774	2.6	4.3				
Cold Climate Heat Pump	Supplemental Electric Resistance	97	1,674,372	4%	56	490	1.0	8.3	1,652			
	Total	5,721	43,257,475	100%	607	5,265	2.4	8.6				
	Heat Pump	5,164	33,597,886	78%	412	3,572	2.8	2.8				
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	556	9,659,590	22%	333	2,829	1.0	8.3	2,029			
	Total	5,720	43,257,475	100%	745	6,402	2.0	8.6				

Memorandum to Enbridge May 19<sup>th</sup>, 2023 Page 20 of 21

				lanaci Bay		Louing Louid			
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO <sub>2</sub> e)
	Furnace Fan				62	541		0.4	169
Baseline: Code 95% Furnace	New 95% AFUE Furnace	5,720	69,211,961	100%	935	2,076	0.95	1.4	4,012
	Total				997				4,181
Hybrid Heating	Heat Pump	4,283	35,327,139	51%	397	3,478	3.0	3.3	1,162
Heat Pump Coil with Existing	Backup Furnace	1,437	33,884,821	49%	481	1,073	0.9	1.4	2,073
Furnace	Total	5,720	69,211,961	100%	878				3,235
Hybrid Hooting	Heat Pump	4,283	35,327,139	51%	360	3,147	3.3	2.6	1,059
Hybrid Heating Heat Pump Coil	Backup Furnace	1,437	33,884,821	49%	458	1,017	0.95	1.4	1,964
	Total	5,720	69,211,961	100%	818				3,023
	Heat Pump	5,613	66,464,849	96%	881	7,636	2.6	6.9	
Cold Climate Heat Pump	Supplemental Electric Resistance	108	2,747,112	4%	92	805	1.0	13.4	2,649
	Total	5,721	69,211,961	100%	973	8,441	2.4	13.7	
	Heat Pump	5,164	53,756,617	78%	660	5,716	2.8	4.5	
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	556	15,455,343	22%	532	4,527	1.0	13.4	3,246
	Total	5,720	69,211,961	100%	1,192	10,243	2.0	13.7	

 Table 17: Results Table for Thunder Bay with a 4 Ton Heating Load

Memorandum to Enbridge May 19<sup>th</sup>, 2023 Page 21 of 21

				iuniuci Day	with a 5 10h	neating Load			
Scenario	System	Heating Hours	Annual Heating Load (Btu)	Percent of Total Load	Total Annual Cost \$	Annual Consumption (kWh or m3)	Annual Efficiency (COP or AFUE)	Operational Peak Demand (kW or m3/hr)*	Total Emissions (kgCO <sub>2</sub> e)
	Furnace Fan				78	676		0.4	211
Baseline: Code 95% Furnace	New 95% AFUE Furnace	5,720	86,514,951	100%	1,168	2,595	0.95	1.7	5,014
	Total				1,246				5,226
Hybrid Heating	Heat Pump	4,283	44,158,924	51%	497	4,347	3.0	4.1	1,452
Heat Pump Coil with Existing	Backup Furnace	1,437	42,356,027	49%	601	1,341	0.9	1.8	2,591
Furnace	Total	5,720	86,514,951	100%	1,098				4,044
Lubrid Llooting	Heat Pump	4,283	44,158,924	51%	450	3,934	3.3	3.3	1,324
Heat Pump Coil	Backup Furnace	1,437	42,356,027	49%	572	1,271	0.95	1.7	2,455
	Total	5,720	86,514,951	100%	1,022				3,779
	Heat Pump	5,608	83,045,026	96%	1,101	9,542	2.6	8.6	
Cold Climate Heat Pump	Supplemental Electric Resistance	113	3,469,925	4%	116	1,016	1.0	16.7	3,314
	Total	5,721	86,514,951	100%	1,217	10,559	2.4	17.1	
	Heat Pump	5,164	67,195,772	78%	824	7,145	2.8	5.6	
Non-Cold Climate Heat Pump	Supplemental Electric Resistance	556	19,319,179	22%	666	5,659	1.0	16.7	4,057
	Total	5,720	86,514,951	100%	1,490	12,804	2.0	17.1	

Table 18: Results Table for Thunder Bay with a 5 Ton Heating Load

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-28 Attachment 2 Page 1 of 1

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Please see Exhibit I.ED-28 Attachment 2.xlsx on the OEB's RDS

From: Gerry Dennis <Gerry.Dennis@enbridge.com> Sent: Tuesday, May 9, 2023 4:09:29 PM Cc: Octavian Ghiricociu <Octavian.Ghiricociu@enbridge.com> Subject: HVAC Contractor Survey

#### Good afternoon.

Enbridge Gas is seeking information to support the Company's understanding of the all-in upfront costs required for homes to convert to natural gas heating or electric cold climate air source heat pumps (ccASHPs). The purpose for the analysis is to determine conversion costs to ccASHPs (for the purpose of converting the homes to all-electric configurations) or to natural gas heating.

Please see the questions below and let us know if you have any questions. Some assumptions to help quide your responses are as follows:

- Assume the home has existing forced air heating (either oil, propane or electric furnace)
- For question #1 & #2, assume the home is converting to a natural gas furnace. •
- For question #3 & #4 assume the home is converting to an all-electric heating system with a • centrally ducted heat pump and air handler. The air handler should to be properly sized with the required electricity resistance backup.

Questions: Please provide typical all-in retail costs (installation and equipment) for products your company sells.

- 1. Natural gas furnace (95% AFUE)
  - a. Installed cost for a natural gas furnace: Low end \$ / High end \$
- 2. Please identify and list any additional costs that may be required to convert homes to a gas furnace (95% AFUE) from oil, propane or electric furnace:
  - a. Additional costs: Low end \$\_\_\_\_\_/ High end \$\_\_\_\_\_
- 3. ccASHP with air handler and electric resistance backup
  - a. Installed cost for the heat pump (equipment including A-coil and installation): Low end \$ / High End \$
  - b. Installed cost for the air handler, including electric resistance heating required to meet design conditions (installation and equipment): Low end \$ / High End \$
- 4. Please identify any additional costs that may be required to convert homes to an all-electric heating system from oil, propane or electric furnace.

  - a. Panel upgrade: Low end \$\_\_\_\_\_/ High End \$\_\_\_\_\_\_
    b. Utility service upgrades (i.e. 200A service): Low end \$\_\_\_\_\_\_ / High End
  - c. Wiring or other costs inside the home: Low End \$ / High End \$
  - d. Any additional costs required for the conversion please identify what these items are:

i. Additional costs: Low end \$\_\_\_\_\_ / High end \$

Trusting you are able to provide feedback to the above, and if so kindly respond by May 15<sup>th</sup> or sooner.

Best regards,

Gerry Dennis 647-515-7803

# Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.28, Attachment 4, Page 1 of 1

	C	verall	Results		ŀ	IVAC Cont	ractor 1	L		н	VAC Co	ontractor	r <b>2</b>		н	VAC Co	ntractor	3		н	IVAC Contr	actor 4	ŀ	IVAC Co	ntracto	or 5
	Low	End	High End	Low E	nd	High End	1	Comments	Low	End	High	End	Comments	Low	End	High I	End	Comments	Low E	End	High End	Comments	Low End	High Ei	nd Co	omments
Natural gas furnace (95% AFUE) a. Installed cost for a natural gas furnace: Low end \$/ High end \$	\$ 3	3,390	\$ 8,000	\$	3,390	\$	6,990		\$	4,200	\$	5,000		\$	4,500	\$	8,000		\$3	3,600	\$ 7,625		\$ 4,200	\$ 6,8	00 Ga	as line from
Please identify and list any additional costs that may be required to convert homes to a gas furnace (95% AFUE) from oil, propane or electric furnace:								gas piping, electrical upgrades														Oil Pump Out, Oil Recycling, Duct Modifications, Gas Line up sizing			ne ar cii br fu sv fro	ew service nd 120 volt rcuit with reaker for urnace if witching om electric
a. Additional costs: Low end \$ / High end \$	\$	500	\$ 3,500	\$	500	\$	1,500		\$	1,500	\$	3,500		\$	1,750	\$	3,000		\$	750	\$ 2,000		\$ 700	\$ 1,5	00	
ccASHP with air handler and electric resistance backup																										
a. Installed cost for the heat pump (equipment including A-coil and installation): Low end \$/ High End \$	<sup>3</sup> \$ (	6,000	\$ 20,000	) \$	6,690	\$	20,000		\$	6,500	\$	9,500		\$	6,000	Ş	12,000		\$7	7,500	\$ 12,500		\$ 10,800	\$ 11,6	00	
b. Installed cost for the air handler, including electric resistance heating required to meet design conditions (installation and equipment): Low end \$ / High End \$	\$ 3	3,000	\$ 12,500	)	2 200	. č	7 000		ć	2 800	ć	F 200		ć	6 000	ć	12.000		ć c	000	¢ 13.500		ć 3.000	ć ro	00	
Please identify any additional costs that may be required to convert homes to an all-electric heating system from oil propage or electric furnace				Ş	3,390	Ş	7,990		Ş	3,800	Ş	5,200		Ş	6,000	Ş	12,000		ŞC	5,000	Ş 12,500		\$ 3,000	\$ 5,0	00	
a. Panel upgrade: Low end \$ / High End \$	\$	500	\$ 4,000	\$	500	\$	2,500		\$	1,800	\$	4,000							\$	500	\$ 2,500	Dig Lines	\$ 1,200	\$ 1,8	00	
<ul> <li>b. Utility service upgrades (i.e. 200A service): Low end \$</li> <li>/ High End \$</li> </ul>	\$	1,000	\$ 10,000	)					ć	6 500	ć	10.000							¢ .		¢ 0.000	underground from pole,	ć 4.000	¢ co	00	
c. Wiring or other costs inside the home: Low End \$ /	\$	250	\$ 1,500						Ş	6,500	\$	10,000							\$ I	1,000	\$ 8,000	etc)	\$ 4,000	\$ 6,0	00	
High End \$									Ş	250	5	1,500							Ş	300	\$ 1,000		Ş 500	Ş 1,0	00	11 da - 11
d. Any additional costs conviced for the conversion																									re ur el· se	ii tank emoval, nderground lectrical ervice or ecessed
please identify what these items are:																									m	ieter
																		duck work				Heat Loss/Gain, LP,			up di be	pgrading, istance etween the
																		and tank removal				Gas, or oil Removal			pa ai	anel and the ir handler
i. Additional costs: Low end \$ / High end \$	\$	650	\$ 2,500											\$	750	\$	2,500		\$	650	\$ 2,000					
OVERALL Gas Furnace	\$ 3	3,890	\$ 11,500	)																						
Heat Pump	\$ 1	1,400	\$ 50,500	)																						
Incremental Incentive	\$ : \$ !	7,510 5,000	\$39,000 \$-	)																						

\$ 5,000 \$ -\$ 2,510 \$ 39,000

# Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.28, Attachment 5, Page 1 of 1

Rates effective 4/1/2023																		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Annual Volume (m <sup>3</sup> )	
Monthly Customer Charge	\$/year	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	\$274.56	360	4337.96
Delivery Charge per m3																	553	6287.07
First 30 m3	cents/m <sup>3</sup>	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	12.0499	589	6386.51
Next 55 m3	cents/m <sup>3</sup>	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	11.3754	899	9392.99
Next 85 m3	cents/m <sup>3</sup>	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	10.8472	2400	11.0018
Over 170 m3	cents/m <sup>3</sup>	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535	10.4535		
Transportation Charge	cents/m <sup>3</sup>	4.293743	4.29374	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743	4.293743		
Gas Supply Charge	cents/m <sup>3</sup>	13.23175	13.2318	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175	13.23175		
Rider C-Gas cost adj	cents/m <sup>3</sup>	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259	1.3259		
Federal Carbon Charge	cents/m <sup>3</sup>	12.39	15.25	18.11	20.97	23.83	26.69	29.54	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4		
Facility Carbon Charge	cents/m <sup>3</sup>	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079		
SES	cents/m <sup>3</sup>	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23		
Typical Residential Customer	cents/m <sup>3</sup>	53.69	56.55	59.41	62.27	65.13	67.99	70.84	73.70	73.70	73.70	73.70	73.70	73.70	73.70	73.70		
Typical Residential Customer incl. SES	cents/m <sup>3</sup>	76.69	79.55	82.41	85.27	88.13	90.99	93.84	96.70	96.70	96.70	96.70	96.70	96.70	96.70	96.70		

Common inputs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Carbon Tax (\$/ton)	\$65	\$80	\$95	\$110	\$125	\$140	\$155	\$170	\$170	\$170	\$170	\$170	\$170	\$170	\$170
\$/m3	\$0.767	\$0.796	\$0.824	\$0.853	\$0.881	\$0.910	\$0.938	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967
Prices (\$/kWh)	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113
Discount Rate:	4%														

	Toronto	Co	ld Clima	te l	Heat P	ump	)	2.5	Tons																						
	Discount Rate		4%																												
	Year		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037
Coonorio			0		1		2		3		4		5		6		7		8		9		10		11		12		13		14
Scenario	Discount factor			0.	.96154	0.9	92456		0.889	0	.8548	0.	82193	0.7	79031	0.	75992	0.	73069	0.	70259	0.6	7556	0.6	64958	C	.6246	0.6	0057	0.5	57748
	Cost	\$	5,100	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
	Cost savings	\$	468	\$	496	\$	525	\$	554	\$	582	\$	611	\$	640	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669
	Total	\$	5,568	\$	496	\$	525	\$	554	\$	582	\$	611	\$	640	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669
	PV	\$	5,568	\$	477	\$	485	\$	492	\$	498	\$	502	\$	506	\$	508	\$	489	\$	470	\$	452	\$	435	\$	418	\$	402	\$	386
	NPV	\$	12,087																												

	Toronto	Co	ld Clima	ite I	Heat P	ump	)	4 T	ons															
	Discount Rate				4%																			
	Year		2023		2024		2025		2026		2027		2028		2029	2030		2031	2032	2033	2034	2035	2036	2037
Sconario			0		1		2		3		4		5		6	7		8	9	10	11	12	13	14
Scenario	Discount factor			0.	96154	0.9	92456		0.889	0	.8548	0.	82193	0.7	79031	0.75992	0.7	3069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
2	Cost	\$	5,100	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$-	\$	-	\$-	\$-	\$-	\$-	\$-	\$ -
	Cost savings	\$	746	\$	792	\$	839	\$	885	\$	931	\$	977	\$ 1	1,023	\$ 1,070	\$1	,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070
	Total	\$	5,846	\$	792	\$	839	\$	885	\$	931	\$	977	\$ ´	1,023	\$ 1,070	\$1	,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070
	PV	\$	5,846	\$	762	\$	775	\$	787	\$	796	\$	803	\$	809	\$ 813	\$	782	\$ 751	\$ 723	\$ 695	\$ 668	\$ 642	\$ 618
	NPV	\$	16,269																					

	Toronto Discount Rate	Co	ld Clima	ite	Heat Pu 4%	ump	5 Tons											
	Year		2023		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Cooperie			0		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Scenario	Discount factor			0	.96154	0.92456	0.889	0.8548	0.82193	0.79031	0.75992	0.73069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
3	Cost	\$	5,100	\$	-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
	Cost savings	\$	933	\$	990	\$ 1,048	\$ 1,106	\$ 1,164	\$ 1,221	\$ 1,279	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337
	Total	\$	6,033	\$	990	\$ 1,048	\$ 1,106	\$ 1,164	\$ 1,221	\$ 1,279	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337
	PV	\$	6,033	\$	952	\$ 969	\$ 983	\$ 995	\$ 1,004	\$ 1,011	\$ 1,016	\$ 977	\$ 939	\$ 903	\$ 868	\$ 835	\$ 803	\$ 772
	NPV	\$	19,059															

Common inputs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Carbon Tax (\$/ton)	\$65	\$80	\$95	\$110	\$125	\$140	\$155	\$170	\$170	\$170	\$170	\$170	\$170	\$170	\$170
\$/m3	\$0.767	\$0.796	\$0.824	\$0.853	\$0.881	\$0.910	\$0.938	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967
Prices (\$/kWh)	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113
Discount Rate:	4%														

	Toronto	Co	d Climate	e He	eat Pur	np		2.5	Tons																						
	Discount Rate		4%																												
	Year		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037
Saanaria			0		1		2		3		4		5		6		7		8		9		10		11		12		13		14
Scenario 4	Discount factor			0.9	96154	0.9	2456		0.889	0	.8548	0.0	32193	0.7	79031	0.7	75992	0.7	73069	0.7	0259	0.6	67556	0.6	64958	C	0.6246	0.6	0057	0.5	7748
	Cost	\$	(46,610)	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
	Cost savings	\$	468	\$	496	\$	525	\$	554	\$	582	\$	611	\$	640	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669
	Total	\$	(46,142)	\$	496	\$	525	\$	554	\$	582	\$	611	\$	640	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669	\$	669
	PV	\$	(46,142)	\$	477	\$	485	\$	492	\$	498	\$	502	\$	506	\$	508	\$	489	\$	470	\$	452	\$	435	\$	418	\$	402	\$	386
	NPV	\$	(39,623)																												

	Toronto	Co	Id Climate	He	at Pur	np		4 Tons													
	Discount Rate				4%																
	Year		2023	;	2024	20	25	202	6	2027		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Sconario			0		1		2	1	3	4		5	6	7	8	9	10	11	12	13	14
Scenario	Discount factor			0.9	<i>J</i> 6154	0.924	-56	0.88	9	0.8548	3.0	32193	0.79031	0.75992	0.73069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
2	Cost	\$	(46,610)	\$	-	\$-		\$-	\$	-	\$	-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
	Cost savings	\$	746	\$	792	\$ 8	39	\$ 885	\$	931	\$	977	\$ 1,023	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070
	Total	\$	(45,864)	\$	792	\$ 8	39	\$ 885	\$	931	\$	977	\$ 1,023	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070	\$ 1,070
	PV	\$	(45,864)	\$	762	\$ 7	75	\$ 787	\$	796	\$	803	\$ 809	\$ 813	\$ 782	\$ 751	\$ 723	\$ 695	\$ 668	\$ 642	\$ 618
	NPV	\$	(35,441)																		

	Toronto Discount Rate	Co	Id Climate	e Heat F 4	ump %	5 Tons											
	Year		2023	202	4 202	5 2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Saanaria			0		1 :	2 3	4	5	6	7	8	9	10	11	12	13	14
Scenario	Discount factor			0.9615	4 0.9245	6 0.889	0.8548	0.82193	0.79031	0.75992	0.73069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
3	Cost	\$	(46,610)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
	Cost savings	\$	933	\$ 99	\$ 1,048	\$ 1,106	\$ 1,164	\$ 1,221	\$ 1,279	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337
	Total	\$	(45,677)	\$ 99	\$ 1,048	\$ 1,106	\$ 1,164	\$ 1,221	\$ 1,279	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337	\$ 1,337
	PV	\$	(45,677)	\$ 953	2 \$ 969	\$ 983	\$ 995	\$ 1,004	\$ 1,011	\$ 1,016	\$ 977	\$ 939	\$ 903	\$ 868	\$ 835	\$ 803	\$ 772
	NPV	\$	(32,651)														

Common inputs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Carbon Tax (\$/ton)	\$65	\$80	\$95	\$110	\$125	\$140	\$155	\$170	\$170	\$170	\$170	\$170	\$170	\$170	\$170
\$/m3	\$0.767	\$0.796	\$0.824	\$0.853	\$0.881	\$0.910	\$0.938	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967
Prices (\$/kWh)	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113
Discount Rate:	4%														

	Ottawa	Co	ld Clima	ite I	Heat Pu	ump	)	2.5	Tons																						
	Discount Rate		4%																												
	Year		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037
Saanaria			0		1		2		3		4		5		6		7		8		9		10		11		12		13		14
Scenario	Discount factor			0.	96154	0.9	92456		0.889	0	).8548	0.	82193	0.7	'9031	0.7	75992	0.	73069	0.7	0259	0.6	67556	0.6	64958	(	).6246	0.6	60057	0.5	7748
	Cost	\$	5,100	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
	Cost savings	\$	495	\$	529	\$	562	\$	596	\$	630	\$	663	\$	697	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731
	Total	\$	5,595	\$	529	\$	562	\$	596	\$	630	\$	663	\$	697	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731
	PV	\$	5,595	\$	508	\$	520	\$	530	\$	538	\$	545	\$	551	\$	555	\$	534	\$	513	\$	494	\$	475	\$	456	\$	439	\$	422
	NPV	\$	12,674																												

	Ottawa	Co	ld Clima	ite H	leat Pu	ump	)	4 T	ons													
	Discount Rate				4%																	
	Year		2023		2024		2025		2026	202	7	2028		2029	2030	2031	2032	2033	2034	2035	2036	2037
Sconario			0		1		2		3	4	4	5		6	7	8	9	10	11	12	13	14
Scenario	Discount factor			0.	96154	0.9	2456		0.889	0.8548	3 (	0.82193	0.7	79031	0.75992	0.73069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
2	Cost	\$	5,100	\$	-	\$	-	\$	-	\$-	5	6 -	\$	-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
	Cost savings	\$	791	\$	845	\$	898	\$	952	\$ 1,006	9	\$ 1,060	\$ 1	1,114	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168
	Total	\$	5,891	\$	845	\$	898	\$	952	\$ 1,006	5	\$ 1,060	\$ 1	1,114	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168
	PV	\$	5,891	\$	812	\$	831	\$	847	\$ 860	5	871	\$	880	\$ 887	\$ 853	\$ 820	\$ 789	\$ 758	\$ 729	\$ 701	\$ 674
	NPV	\$	17,204																			

	Ottawa Discount Rate	Co	old Clima	te Heat Po 4%	ump	5 Tons											
	Year		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Cooncelo			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Scenario	Discount factor			0.96154	0.92456	0.889	0.8548	0.82193	0.79031	0.75992	0.73069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
3	Cost	\$	5,100	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
	Cost savings	\$	987	\$ 1,055	\$ 1,122	\$ 1,189	\$ 1,257	\$ 1,324	\$ 1,391	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459
	Total	\$	6,087	\$ 1,055	\$ 1,122	\$ 1,189	\$ 1,257	\$ 1,324	\$ 1,391	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459
	PV	\$	6,087	\$ 1,014	\$ 1,037	\$ 1,057	\$ 1,074	\$ 1,088	\$ 1,099	\$ 1,108	\$ 1,066	\$ 1,025	\$ 985	\$ 947	\$ 911	\$ 876	\$ 842
	NPV	\$	20,219														

Common inputs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Carbon Tax (\$/ton)	\$65	\$80	\$95	\$110	\$125	\$140	\$155	\$170	\$170	\$170	\$170	\$170	\$170	\$170	\$170
\$/m3	\$0.767	\$0.796	\$0.824	\$0.853	\$0.881	\$0.910	\$0.938	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967	\$0.967
Prices (\$/kWh)	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113
Discount Rate:	4%														

	Ottawa	Cold Clima	ate I	Heat Pu	ump	)	2.5	Tons																						
	Discount Rate	4%																												
	Year	2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037
Saanaria		0		1		2		3		4		5		6		7		8		9		10		11		12		13		14
Scenario	Discount factor		0.	.96154	0.9	92456		0.889	C	.8548	0.	82193	0.7	9031	0.7	75992	0.	73069	0.7	70259	0.6	7556	0.6	64958	(	).6246	0.6	60057	0.5	7748
	Cost	\$ (46,610)	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
	Cost savings	\$ 495	\$	529	\$	562	\$	596	\$	630	\$	663	\$	697	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731
	Total	\$ (46,115)	\$	529	\$	562	\$	596	\$	630	\$	663	\$	697	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731	\$	731
	PV	\$ (46,115)	\$	508	\$	520	\$	530	\$	538	\$	545	\$	551	\$	555	\$	534	\$	513	\$	494	\$	475	\$	456	\$	439	\$	422
	NPV	\$ (39,036)																												

	Ottawa	Cold Clima	ite Heat	Pun	лр	4 Tons											
	Discount Rate		4	%													
	Year	2023	20	24	2025	2026	<u>کو 2027</u>	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Sconario		0		1	2	3	4 ک	5	6	7	8	9	10	11	12	13	14
Scenario	Discount factor		0.961	) 4ز	).92456	0.889	0.8548	0.82193	0.79031	0.75992	0.73069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
2	Cost	\$ (46,610)	\$ -	\$	, -	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
	Cost savings	\$ 791	\$ 84	5 \$	898	\$ 952	\$ 1,006	\$ 1,060	\$ 1,114	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168
	Total	\$ (45,819)	\$ 84	5 \$	898	\$ 952	\$ 1,006	\$ 1,060	\$ 1,114	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168	\$ 1,168
	PV	\$ (45,819)	\$ 81	2 \$	, 831	\$ 847	\$ 860	\$ 871	\$ 880	\$ 887	\$ 853	\$ 820	\$ 789	\$ 758	\$ 729	\$ 701	\$ 674
	NPV	\$ (34,506)	,														

	Ottawa Discount Rate	Cold Clima	te Heat Pi 4%	ump	5 Tons											
	Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Coomenie		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Scenario	Discount factor		0.96154	0.92456	0.889	0.8548	0.82193	0.79031	0.75992	0.73069	0.70259	0.67556	0.64958	0.6246	0.60057	0.57748
3	Cost	\$ (46,610)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ -
	Cost savings	\$ 987	\$ 1,055	\$ 1,122	\$ 1,189	\$ 1,257	\$ 1,324	\$ 1,391	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459
	Total	\$ (45,623)	\$ 1,055	\$ 1,122	\$ 1,189	\$ 1,257	\$ 1,324	\$ 1,391	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459	\$ 1,459
	PV	\$ (45,623)	\$ 1,014	\$ 1,037	\$ 1,057	\$ 1,074	\$ 1,088	\$ 1,099	\$ 1,108	\$ 1,066	\$ 1,025	\$ 985	\$ 947	\$ 911	\$ 876	\$ 842
	NPV	\$ (31,491)														

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-29 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

# Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

# Question(s):

- a) Please provide file a copy of EB-2022-0249, Exhibit I.ED.16, Attachment 2 and the associated live excel spreadsheet.
- b) Is Enbridge asking Guidehouse to continue with the work described in (a)? If yes, please describe the next steps.
- c) For what purpose did Enbridge ask Guidehouse to prepare the analysis discussed in (a).

# Response:

- a) Please see Attachment 1 to the response at Exhibit I.ED-28 for the Guidehouse report/memo, and Attachment 2 to response at Exhibit I.ED-28 for the live excel spreadsheet. Both attachments are unchanged from the attachments referenced in the interrogatory.
- b) Enbridge Gas is in the process of assessing additional analysis related to the deliverables provided in part a) above; however, no decisions have been made. The next steps involve determining the potential scope of work.
- c) Enbridge Gas commissioned Guidehouse Inc. in Q1 2023 to provide an assessment of the annual operating costs of all-electric and hybrid air source heat pump systems, including high-efficiency electric cold climate air source heat pumps. The analysis included four Ontario climates (Windsor, Toronto, Ottawa, and Thunder Bay) at three peak winter design loads (2.5 tons, 4 tons, and 5 tons). The analysis will assist the Company with understanding the performance trade-offs between all electric heat pump systems and hybrid heat pump systems with natural gas backup.
Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-30 Page 1 of 4

# ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

# Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

# Question(s):

a) Please complete the following table with respect to the Guidehouse report on heat pumps and Enbridge's own analysis of heat pump cost-effectiveness:

	Guidehouse Report Output Tables	Enbridge Analysis
Accounts for cooling efficiency		
benefits and cooling savings		
from cold climate heat pumps		
Accounts for tax on gas costs		
Accounts for tax on electricity		
cost		
Accounts for lifetime costs,		
including increases in the		
carbon price		
Includes air conditioner capital		
cost		
Accounts for federal \$40,000		
Interest-free loans for heat		
pumps		
Accounts for the conversion cost		
to a gap furnance including		
ductwork costs		
Accounts for the extra length		
charge		
Itemizes additional gas		
conversion costs such as intake		
and exhaust vents, condensate		
pump, etc.		
Accounts for federal rebates		
available for heat pump		
conversions, including the		
\$10,000 oil to heat pump rebate		

- b) Please confirm if this statement is accurate, and if not, provide the accurate figures: The carbon price, which was only established in 2019 and adds 12.39 cents/m3 now, and will add 32.40 cents/m3 by 2030.
- c) Approximately when did cold climate heat pumps that can heat homes throughout Ontario's climate first become widely available in the Ontario market?
- d) When did variable speed heat pumps with higher levels of efficiency first become widely available in the Ontario market?
- e) When did heat pumps with built-in backup heating elements as a standard item in the air handler first become widely available in the Ontario market?

## Response:

a) Enbridge Gas interprets the "Guidehouse Report Output Tables" within the interrogatory as the information reported within the Guidehouse report/memo dated May 19, 2023 (filed at Attachment 1 to response at Exhibit I.ED-28). Enbridge Gas interprets the "Enbridge Analysis" as the entirety of the Company's analysis provided at response to Exhibit I.ED-28. For clarity, the analysis/conclusions provided by Enbridge Gas at response to Exhibit I.ED-28 did not rely on the information reported within the Guidehouse report/memo (i.e., Attachment 1 to response at Exhibit I.ED-28). Rather, the Company used the Guidehouse spreadsheet model (filed at Attachment 2 to response at Exhibit I.ED-28) in conjunction with more precise model inputs to establish its analysis/conclusions on the matter. The information reported within the Guidehouse report/memo is less precise than, and not relevant to, Enbridge Gas's analysis on the matter. As such, the Company declines to provide the requested information regarding the Guidehouse report/memo.

For the requested information regarding Enbridge Gas's analysis (provided at response to Exhibit I.ED-28) please see Table 1.

	Enbridge Gas's Analysis
Accounts for cooling efficiency	No, Enbridge Gas's cost-effectiveness analysis assessed space
benefits and cooling savings from	heating only. It should be noted that the inclusion of electric
cold climate heat pumps	summer cooling to the cost-effectiveness analysis is complex as
	it would not only require a technical assessment of the
	performance efficiencies of electric summer cooling equipment
	types but also an assessment of the impact that electric heat

 Table 1

 Enbridge Gas's Analysis of Heat Pump Cost-Effectiveness

	pumps have on consumer energy bills for those consumers who would not opt for traditional electric summer cooling equipment with a natural gas furnace.
Accounts for tax on gas costs	No
Accounts for tax on electricity cost	No
Accounts for lifetime costs, including increases in the carbon price	Yes
Includes air conditioner capital cost	No, Enbridge Gas's cost-effectiveness analysis assessed space heating only. It should be noted that the inclusion of electric summer cooling to the cost-effectiveness analysis is complex as it would not only require a technical assessment of the performance efficiencies of electric summer cooling equipment types but also an assessment of the impact that electric heat pumps have on consumer energy bills for those consumers who would not opt for traditional electric summer cooling equipment with a natural gas furnace.
Accounts for federal \$40,000 interest-free loans for heat pumps	No, loans do not impact the upfront cost for heat pumps and therefore do not impact the cost-effectiveness analysis. Additionally, not all homeowners are eligible for the loan (the loan is only applicable to retrofits that are recommended in a pre-retrofit evaluation. <sup>1</sup> A heat pump would have to be recommended to qualify).
Accounts for the conversion cost scenario of electric baseboards to a gas furnace, including ductwork costs	No, Enbridge Gas's analysis focused on homes with pre-existing forced air heating systems, as indicated in Attachment 3 to Exhibit I.ED-28.
Accounts for the extra length charge	No.
Itemizes additional gas conversion costs such as intake and exhaust vents, condensate pump, etc.	Yes. Enbridge Gas's analysis considers additional costs aside from installed natural gas furnace costs. Please see Attachment 3 (question #2) and Attachment 4 ("additional costs" under "Natural gas furnace (95% AFUE)") to Exhibit I.ED-28.

<sup>&</sup>lt;sup>1</sup> <u>https://natural-resources.canada.ca/energy-efficiency/homes/canada-greener-homes-initiative/canada-greener-homes-loan/24286</u>

Accounts for federal rebates	Enbridge Gas's analysis accounts for the \$5000 Federal grant
available for heat pump	for heat pumps, as indicated in response at Exhibit I.ED-28 part
conversions, including the \$10,000	a).
oil to heat pump rebate	

#### b) An accurate statement would be:

The Federal Carbon Charge became effective April 1, 2019, and increases each subsequent year on April 1. Schedule 2 of the Greenhouse Gas Pollution Pricing Act was amended on April 1, 2023, to include the Federal Carbon Charge rates from 2023 to 2030. In 2023, the Federal Carbon Charge is equivalent to \$65 per tonne of carbon dioxide equivalent (tCO<sub>2</sub>e) or 12.93 ¢/m<sup>3</sup> of natural gas. After March 31, 2030, the Federal Carbon Charge is expected to be \$170/tCO<sub>2</sub>e or  $32.40 \text{ ¢/ m}^{3.2}$ 

#### c - e)

The Company does not have the requested information regarding dates related to the availability of non-natural gas end-use equipment. In addition, the information is outside the scope of this proceeding.

<sup>&</sup>lt;sup>2</sup> The Greenhouse Gas Pollution Pricing Act, Schedule 2 and Schedule 4, <u>https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf</u>

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-31 Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

# Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

# Question(s):

- a) Please provide a table showing all the assumptions regarding heat pump capital costs and efficiency levels outlined in Exhibit I.10h.EGI.STAFF.77 in EB-2021-0002.
- b) Please provide the implicit cost and efficiency for a cold climate heat pump underlying the Total Resource Cost figures for Enbridge's DSM programs.
- c) Please provide a table showing the cost of a cold climate heat pump per the US Energy Information Administration's *Buildings Sector Appliance and Equipment Costs and Efficiencies*<sup>1</sup>. Please convert the costs to Canadian dollars.
- d) Please provide a copy of all studies or reports with details on the installed cost of a cold climate heat pump in Ontario and/or Canada.
- e) For (d) please confer with Enbridge's DSM team in responding to the question and confirm that you have done so.
- f) Please comment on the following analysis by Ralph Torrie on the heating savings from heat pumps - https://www.corporateknights.com/issues/2023-06-best-50issue/calculate-the-savings-from-electrifying-your-home/.

## Response:

a) Enbridge Gas respectfully declines to provide the requested information. The information sought by ED is no longer current. Enbridge Gas has provided more up to date and refined information regarding assumptions related to electric heat pumps (see response to Exhibit I.ED-28 part a) for more information).

<sup>&</sup>lt;sup>1</sup> https://www.eia.gov/analysis/studies/buildings/equipcosts/

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-31 Page 2 of 2

- b) Enbridge does not have implicit upfront costs or performance efficiency assumptions for electric cold climate heat pumps as part of its DSM programs. Electric cold climate heat pumps are included within Enbridge Gas's HER+ program, however the program incents a wide range of electric heat pumps that have a range of upfront costs and performance efficiencies. Each electric heat pump home/participant is considered/assessed individually.
- c) Enbridge Gas respectfully declines to reproduce the requested information. The website link provided by ED in the interrogatory appears to contain significant amounts of publicly available information provided by another party, which Enbridge Gas cannot not reasonably interpret and review.
- d) Enbridge Gas has not completed studies or reports with details on installed cost of electric cold climate heat pumps in Ontario and/or Canada. In May 2023 Enbridge Gas requested upfront cost information from HVAC contractors via e-mail survey regarding conversions to high-efficiency electric cold climate air source heat pumps (see response to Exhibit I.ED-28 part a) for more information). The results of the survey found that there is a wide range of upfront costs for conversions to high efficiency electric cold climate air source heat pumps. Enbridge Gas cautions that the results are meant to be illustrative and that more refined research would be required to establish robust estimates/assumptions.
- e) Confirmed.
- f) The article appears to be related to non-natural gas energy solutions and is well outside the scope Enbridge Gas's application and evidence, and as such the Company has no comments.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-32 Plus Attachment Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

# Question(s):

- a) Please provide a table summarizing the comparison of the cost of heating a home with methane gas versus heating a home with a heat pump as set out in Ministry of Energy document entitled "Future of Natural Gas Expansion and Home Heating Affordability - Discussion Paper for Consultation."<sup>1</sup>
- b) To allow it to be referred to with an exhibit number, please file a copy of the Ministry of Energy document entitled "Future of Natural Gas Expansion and Home Heating Affordability - Discussion Paper for Consultation."<sup>2</sup>
- c) Please provide a copy of any submissions that Enbridge has made to the Ministry of Energy regarding the future of natural gas expansion.

# Response:

# a) – b)

Enbridge Gas respectfully declines to produce the requested table and file a copy of the referenced report, as it was not produced by Enbridge Gas and the Company cannot verify the data or analysis contained within it. Please refer to Exhibit I.ED-28 for further discussion on the cost of heating a home with natural gas versus a heat pump.

c) Please see Attachment 1 to this response for a copy of Enbridge Gas's December 15, 2023 submission to the Ministry of Energy regarding feedback on the future of natural gas expansion.

<sup>1</sup>https://prod-environmental-registry.s3.amazonaws.com/2023-08/Future%20of%20Natural%20Gas%20Expansion%20Final\_pdf\_0.pdf <sup>2</sup> https://prod-environmental-registry.s3.amazonaws.com/2023-08/Future%20of%20Natural%20Gas%20Expansion%20Final\_pdf\_0.pd



# Enbridge Feedback on the future of natural gas expansion and home heating affordability

ERO #019-7506

Submission date: December 15, 2023

#### About Enbridge Inc.

At Enbridge, we safely connect millions of people to the energy they rely on every day, fueling quality of life through our North American natural gas, oil or renewable power networks and our growing European offshore wind portfolio. Enbridge Gas, a subsidiary of Enbridge Inc., is Canada's largest natural gas storage, transmission and distribution company based in Ontario, with more than 175 years of service to customers. The distribution business provides safe, affordable, reliable energy to about 3.9 million homes, businesses and industries and is leading the transition to a clean energy future through net zero emissions targets and investments in innovative low-carbon energy solutions. With the recently announced acquisition of three gas utilities serving customers in five US states, Enbridge will own and operate the largest gas utility franchise in North America. We're investing in modern energy delivery infrastructure to sustain access to secure, affordable energy and building on two decades of experience in renewable energy to advance new technologies including wind and solar power, hydrogen, renewable natural gas and carbon capture and storage. We're committed to reducing the carbon footprint of the energy we deliver, and to achieving net zero greenhouse gas emissions by 2050.

Headquartered in Calgary, Alberta, Enbridge's common shares trade under the symbol ENB on the Toronto (TSX) and New York (NYSE) stock exchanges.

To learn more, visit us at Enbridge.com.

Learn more at <u>www.enbridgegas.com</u>.



# Introduction

Enbridge Inc. (Enbridge) commends the Government of Ontario for its continued support for the Natural Gas Expansion Program (NGEP) that offers critical financial support without which connecting communities would not be economical. Enbridge also appreciates the opportunity to submit feedback on the future of natural gas expansion and home heating affordability.

The Government's investments in Phases 1 and 2 of NGEP has enabled families and businesses in a number of communities to have lower energy bills, which are necessary now more than ever to address affordability issues and attract investments into the province. We appreciate having the opportunity to show our support for such needed investments in providing Ontarians with equitable access to the benefits the natural gas system offers.

Ontario's NGEP is a leading example in North America of how a government can support the reliability and affordability of the energy system during the transition to lower emissions. At the same time NGEP is leveraging the natural gas system fully for attracting investment and underpinning economic growth by connecting new development projects to the existing energy system. This has been a world class program that the province would be smart to continue to capitalize on.

With Enbridge Gas's over 175 years of operational excellence and strong safety performance, we are well positioned to bring affordable, reliable, and resilient natural gas and low-carbon fuels to new communities that need it.

# **Executive Summary**

Enbridge believes that timely investments in natural gas projects help Ontario make a real impact on local communities and help provide cost savings to families and businesses that desperately need it. Natural gas has a significant positive impact in communities where businesses and homeowners have expressed a strong interest in accessing this affordable, reliable, and resilient source of energy. Now more than ever, government investments should focus on initiatives that improve the lives of Ontarians, create jobs, and lower energy bills.

Enbridge is committed to continued support of the delivery of Ontario's NGEP, which enhances community access to affordable, safe, reliable, and resilient energy - a mission that is in alignment with Ontario's energy transition objectives. We believe that NGEP offers a range of benefits that contribute to both short-term and long-term energy security, sustainability, and consumer choice goals.

#### **Benefits:**

- **Cost-savings:** By transitioning away from higher emitting fuels to natural gas, large and small businesses could save up to 30% each year on their annual space and water heating bills, with homeowners realizing even greater savings.<sup>1</sup>
- Emissions reduction and energy efficiency: Enbridge is driving emissions reduction by allowing new customers to transition from higher-emission energy sources to natural gas. This shift not only reduces emissions but also results in significant reductions in annual energy consumption through Enbridge's suite of energy efficiency and conservation programs available to our customers.
- **Reliability:** The NGEP helps connect communities and businesses to the natural gas system, which is 99.9993% reliable, delivering up to 90 GW equivalent of peak winter capacity.

<sup>&</sup>lt;sup>1</sup> <u>Future of Natural Gas Expansion Final\_pdf\_0.pdf (prod-environmental-registry.s3.amazonaws.com)</u> p.3-4.

<sup>\*</sup> Please note that these numbers are as of October 1, 2023, and subject to change based on commodity price changes, rate rebasing, and changes to federal carbon charge.



- **Resiliency:** The NGEP provides more Ontarians with access to resilient underground energy infrastructure, ensuring their uninterrupted access to energy even during extreme events, including weather-related disruptions and cybersecurity threats.
- Path to a net-zero future: Over the long term, customers can decrease their natural gas usage and transition to lower carbon fuels, such as renewable natural gas (RNG) and hydrogen, a step that directly contributes to achieving a net-zero future.
- Industrial competitiveness: The competitiveness of Ontario's industrial customers relies on keeping and further expanding the 3.9 million customers connected to the gas system. Industrial customers bear only 20% of the cost of the system, therefore maintaining a broad customer base is critical to Ontario's industrial competitiveness and energy system's resiliency.

The benefits of expanding access to natural gas to more Ontario businesses and homes can only be realized with the active support and enablement from the province. Supporting the economic viability of expanding the natural gas system to more communities, providing policy clarity on the of gas in the economy, and reducing regulatory red tape and uncertainty are necessary if the province wants to realize the benefits of NGEP.

#### **Recommendations:**

- Aligning OEB's LTC procedure with Government policy: Consistent with the OEB's recommendation to the Electrification and Energy Transition Panel regarding enabling the OEB to consider the public interest in electricity transmission projects' leave to construct (LTC) in accordance with government policy, Enbridge urges the government to ensure alignment between the OEB's LTC procedure and Ontario's policies, specifically the Access to Natural Gas Act, 2018, emphasizing the importance of prioritizing the public interest in extending natural gas access to underserved areas.
- Streamlining regulatory processes and timelines: Enbridge recommends streamlining the program's review timeliness and modernizing regulatory processes, including revising the outdated LTC thresholds set out in section 90(1) of the *Ontario Energy Board Act*. These changes would significantly expedite project timelines and decrease expenses for households and businesses seeking access to the natural gas system. Moreover, this would assist customers who have expressed a desire for natural gas, ensuring they do not have to resort to heating options that may be less affordable, less dependable, less resilient, and have higher GHG emissions.
- **Flexibility of funding allocation framework:** Increase flexibility in funding allocation to handle project changes and cost variations within a predefined range, enhancing efficiency. This flexibility can be offered on a utility portfolio basis to provide an overall funding cap.
- **Pre-consultation period:** Implement a pre-consultation period with other government bodies prior to final selection of approved projects to streamline and expedite project execution.
- Alternative funding mechanisms: Enbridge recommends exploring alternatives to ratepayer funding, such as government subsidies funded through taxes, akin to electrical subsidies. This approach would cost only a fraction of the annual electrical subsidies and can help in ensuring equitable access to the affordability, reliability, and resiliency benefits that the gas system offers.<sup>2</sup>
- **Hybrid heating expansion:** Expanding hybrid heating programs to communities benefiting from NGEP would offer them further choices for bill savings and emissions reduction.
- **Supporting RNG Production:** Leveraging natural gas expansion could also serve to connect RNG production facilities to the grid to further support economic development and

<sup>&</sup>lt;sup>2</sup> The  $\sim$  \$234 million allocated for Phase 2 of the NGEP is a fraction of the  $\sim$  \$6.4 billion government subsidies that that directly reduce the electricity bills of Ontario households and businesses.



decarbonization initiatives. For instance, see the recent <u>submissions</u> provided by the Coalition for Renewable Natural Gas discussing RNG potential in Ontario and North America in Phase 1 of the Enbridge Gas 2024 Rebasing proceeding before the OEB.

In conclusion, natural gas expansion is essential for Ontario's energy transition, aligning with sustainability and economic growth objectives. This expansion not only reduces carbon emissions but also fosters job creation and economic prosperity in the region. It is a critical step in delivering reliable and cost-effective natural gas and low-carbon fuels like hydrogen and RNG, thereby supporting a sustainable and prosperous energy future.

Below are Enbridge's responses to the consultation questions.

# Theme 1: Performance of NGEP to Date

- 1. What are your perspectives on the operations of NGEP to date, including the application and project intake process for Phase 2 NGEP in 2020?
- High demand for natural gas: Phase 2 of the NGEP saw a significant oversubscription, underscoring the ongoing demand and desire by Ontario residents, businesses, and municipalities to access natural gas.
- **Broad municipal support:** Enbridge received letters of support and council resolutions from all municipalities selected for Phase 2 of the NGEP, reflecting widespread endorsement for the program.
- LTC and Timeline Challenges: NGEP projects that have not required LTC approval have been executed on time and within budget, delivering early benefits to Ontario businesses and homeowners. However, Enbridge has experienced challenges, including project delays stemming from regulatory issues and uncertainties and timelines. These delays have had repercussions on budgets, project scopes, and construction schedules. The delays have also introduced setbacks for residential, business, and Indigenous communities waiting for access to the affordable, reliable, resilient natural gas they need.
- Potential for threshold adjustment: Enbridge is supportive of the Government's proposal to streamline the threshold criteria and regulatory process for LTC, including finding ways to expedite review of projects over the 25-year-old LTC threshold of \$2 million but not exceeding \$10 million while maintaining the rigor of Indigenous consultation and environmental assessment. Enbridge also believes that the Government should increase the threshold for pipe size from NPS 12 to NPS 16 with a corresponding increase in operating pressure (2,000 to 3,600 kPA). This threshold review could help reduce red tape and support investments and customer connections including for NGEP Phase 2 and potential future projects. To highlight the impact of this change, over 100 of Enbridge's Phase 2 community expansion project proposals fell below \$10 million and around 65% of Phase 2 projects would be expedited if the LTC process is streamlined for projects above \$2 and \$10 million. Continuing with the current LTC process for all gas projects above \$2 million could delay customer connections by at least 6-12 months and incur ~\$100,000 to \$200,000 or more of additional regulatory and legal costs per project that are ultimately passed on to Ontario rate payers with other potential cost implications on the planning and construction budgets.
- **Lessons learned:** The NGEP guidelines and regulations would significantly improve with the following key enhancements:
  - Incorporation of greater flexibility into the program's funding allocation framework for handling project scope changes and cost and customer load variances, potentially within a predefined range of funding "top up" eligibility or +/-20% for each project budget but to be capped within an overall utility portfolio basis. This adaptive approach would enhance the program's efficiency in addressing unforeseen issues if/when they arise to support maintaining project feasibility.
  - Additionally, a pre-consultation period on a subset of "first round" selected projects, prior to final selection of approved projects, to formally solicit information from other approving ministries,



municipalities, regions, and agencies in a consistent fashion. This could include but is not limited to, other infrastructure projects in the area that may impact the project scope, market research and future growth plans if available. Enbridge would then be given the opportunity to adjust the scope and economics to accommodate the pre-consultation information and ensure adequate funding is awarded." Such pre-consultation would better support execution of the project scopes and minimize challenges with conflicting priorities limiting our ability to obtain approvals.

In summary, while Phase 2 NGEP has experienced strong demand and support, LTC and timeline challenges have affected project timelines and budgets. Enbridge recommends streamlining the LTC process for projects between \$2 million and \$10 million to reduce red tape, expedite project implementation, and broaden access to natural gas. Furthermore, implementing lessons learned, such as introducing flexibility for managing scope changes and cost variances, and pre-consultation with government and approving agencies would go a long way in enhancing the program's adaptability and efficiency in connecting communities to the affordable, reliable, and resilient energy they need.

# 2. What, in your opinion, are the most important aspect(s) and successes of natural gas expansion as supported through this program?

- Affordability: The NGEP achieves annual cost savings of up to 30% each year on space and water heating, with some homeowners realizing even greater savings. This affordability is vital for Ontario residents and businesses now more than ever.
- **Reliability:** The NGEP helps connect communities and businesses to the natural gas system, which is 99.9993% reliable, delivering up to 90 GW equivalent of peak winter capacity, ensuring uninterrupted energy supply even during extreme weather events.
- **Resiliency:** The program enhances Ontarians' access to resilient energy infrastructure, ensuring their uninterrupted access to energy despite extreme events, including weather-related disruptions and cybersecurity threats.
- **Customer choice:** The program empowers Ontario energy consumers by offering flexibility in supporting their path to achieving net-zero emissions cost-effectively, aligning with the province's sustainability goals.
- Economic development: Enbridge Gas' proposed four economic development projects for Phase 2 were modeled on the successful in-service Chatham-Kent Rural Project. Enbridge Gas held an Expression of Interest process in the Niagara, Haldimand-Dunnville, Haldimand-Nanticoke and Hamilton regions where customers expressed a strong demand for potential capacity expansion projects by submitting "bids" articulating their demand and possible job and investment impacts. Bidders indicated that if these projects were to proceed, they would be investing \$1.75 billion in development at their sites.
  - **Job creation:** The expansion of natural gas infrastructure significantly contributes to direct and indirect employment opportunities in the province. For example, the Phase 2 bidder's investments would support the creation of over 8,000 direct jobs and 6,000 indirect jobs.
  - Cost savings for businesses: The natural gas expansion program helps businesses reduce overhead costs and indirectly benefit the broader economy. This includes allocating resources to business expansion, creating local jobs, stimulating private investment, and contributing to broader economic benefits such as payroll support and tax revenues.
- Industrial competitiveness: The competitiveness of Ontario's industrial customers relies on keeping and further expanding our 3.9 million customers connected to the gas system. Our industrial customers bear only 20% of the cost of the system. Maintaining and expanding the natural gas customer base is critical to Ontario's industrial competitiveness and energy system's resiliency.

In summary, smart, timely investments in natural gas projects are one way Ontario can make a real impact on local communities and help provide cost savings to businesses that desperately need it. The proposed natural gas expansion program in Ontario offers significant benefits, including up to 30% cost savings on heating, access to a 99.9993% reliable energy system, improved resiliency during extreme



events, and increased customer choice to support sustainability goals. Additionally, it drives economic development, creating thousands of jobs and reducing overhead costs for businesses, stimulating investment, and bolstering the overall economy.

# Theme 2: Conversion to Natural Gas for Home Heating

- Do you have any relevant information related to your experience with the cost of residential heating system conversion to natural gas from other fuel types (such as propane, fuel-oil, wood, and electric baseboard heating)? If available, please include a breakdown or estimate of all one-time costs incurred in this process (e.g., equipment cost for natural gas furnace, costs of retrofitting a home, upfront cost of connecting a home to the nearby main natural gas line).
  - Affordability: The natural gas system delivers approximately 30% of the energy in Ontario annually. The cost to operate the gas system is roughly 1/3 of what it costs to operate the electricity system, which supplies only about half of the amount of energy as the gas system annually.<sup>3</sup> Ontario's energy system reality is that natural gas remains a cost-effective energy option for Ontarians. With respect to individual homeowners, natural gas offers a more cost-effective energy solution compared to existing alternatives such as electric resistance heating, propane, or oil.<sup>4</sup>
  - **Comfort and convenience:** Switching to natural gas means Ontario residents and businesses will not have to worry about running out of fuel or waiting for deliveries, ensuring a more convenient heating experience.
  - **Lower carbon emissions:** Switching from higher emitting fuels like heating oil/propane to natural gas can contribute to reducing Ontario's carbon footprint.
  - Versatility and efficiency: Natural gas provides a cost-effective energy solution in the transition away from higher emitting fuels, as it can be used for various applications, from heating to appliances such as fireplaces and clothes dryers.

In summary, switching from higher emitting fuels to natural gas provides a more cost-effective and convenient energy solution, compared to homeowners' existing alternatives like electric resistance heating, propane, or oil. Additionally, this transition can help reduce carbon emissions and enhance versatility and efficiency in various applications, contributing to a more sustainable energy choice for both residential and business needs.

2. We are looking to gather information from customers who have converted their homes to natural gas heating in the recent years. For example: Do you have information on the ease of finding qualified and experienced technicians/contractors to complete the work, timeliness of upgrades and/or connections?

Testimonials from customers that converted their homes to natural gas can be found here: <u>The secret</u> to saving on heating costs – YouTube and on the Enbridge gas <u>website</u>.

With regard to the ease of finding qualified licensed heating, ventilation, and air conditioning (HVAC) contractors, Enbridge provides a list of contractors active within the project area to customers upon

<sup>3</sup> <u>Cost Electricity</u>: \$18.6B operating revenues, OEB's 2022 yearbook and \$3.1B Renewable Cost Shift Subsid estimate, Financial Accountability Office of Ontario's Report, Ontario's Energy and Electricity Subsidy Programs, February 2022. Cost Gas: Total operating revenues for Ontario's gas distributors, OEB's 2022 yearbook.

<sup>&</sup>lt;sup>4</sup> Please note that regarding the cost of conversion for customers, it depends on numerous factors that would require careful consideration in order to develop a consumer conversion cost comparison. Enbridge does not have and cannot reasonably attain/assess this information at this time. Furthermore, consumer conversions from oil to non-natural gas energy solutions (i.e., high-efficiency electric cold climate air source heat pumps) and vice versa, are not within the scope of Enbridge's natural gas LTC Applications. However, operating costs are easier to estimate. Please refer to the operating costs figure below.



request with the disclaimer that the list of HVAC provided should not be considered comprehensive nor does it prohibit other contractors from participating in the community expansion program. Enbridge does not endorse or recommend specific contractors and recommends obtaining more than one quote from various sources. Enbridge also allows interested licensed contractors to be added to the distribution list.

3. What is your awareness about available government/industry subsidies and the ease of accessing incentives when converting a home to natural gas heating from other fuel types?

Enbridge Gas customers, including residents and businesses who are converting their heating to natural gas from other fuel types at the time they are participating in the NGEP program, have access to DSM programming which offers a number of opportunities to increase the efficiency of their building, lower energy usage and save on bills. In addition, there are several government programs that target various sectors to reduce energy and GHG emissions that are available to consumers. .

In summary, when converting a building to natural gas heating from other high emitting fuel sources, customers have access to government and Enbridge Gas DSM program rebates. The programs available for consumers make it financially attractive and accessible for building owners to improve energy efficiency while transitioning to gas.

4. Do you have any information on monthly or annual energy cost differences between natural gas, and the other fuel types/home heating systems? Please note any savings for households from using natural gas, based on your own experiences and/or your estimates and forecasts, if available. Please note your assumptions and all relevant context to the extent possible.

Enbridge Gas provides estimated costs and savings of natural gas to alternative fuel sources on its website, typically updated on a guarterly basis. See below for the most recent infographic. Notably, Enbridge Gas does not provide cost comparisons for electric cold climate air source heat pumps because such costs are highly variable.



**Residential Annual Heating Bills (Rate 1)\*** 

ENBRIDGE

d on 2,400 m<sup>2</sup> annual consumption. Natural gas price is based on Ret 1 rates in effect as of October 1, 2023, oll and propane prices are based on the latest available retail prices. Electricity rates based on Toronto Hydro rates as of Jan. 1, 2023, and Regulate Ian (RPP) customers that are on Time-Of-Use (TOU) pricing, It includes the Ontario Electricity Rebate (ORR). Electric cold climate air source her pumption are available but not included in the saving calculations. Costs have be red for the equivalent energy consumed and included air source, delivery and energy charges. The Federatic altoroch aregin is included for all energy types are protected to increase annually depending on governm



# Theme 3: Natural Gas Expansion and Indigenous Communities

1. Are there any additional or unique concerns and priorities that you or your community experience or have identified regarding heating options, cost, and affordability?

While Enbridge does not purport to speak on behalf of Indigenous communities, Indigenous Engagement Advisors at Enbridge frequently hear Indigenous communities voice concerns about the costs associated with converting their heating source to natural gas. In many cases, the absence of funding and/or support programs that could help offset the conversion costs remain a barrier for Indigenous community members to take advantage of natural gas offerings in their communities. While conversion cost concerns are often brought up to Enbridge by Indigenous community members, Enbridge would recommend specific consultation with Indigenous communities to better understand their unique perspectives on this issue.

# 2. Are there any specific environmental concerns that you or your community feel should be considered or prioritized in current and future natural gas planning?

Enbridge completes Environmental Assessments in accordance with the Ontario Energy Board's (OEB) *Environmental Guidelines for Hydrocarbon Projects and Facilities in Ontario* (8<sup>th</sup> edition, 2023). Through this process, a thorough consultation and engagement program is completed to identify and address concerns brought forward by stakeholders, including Indigenous communities, regulators, and the general public. Mitigation measures are recommended and documented into an Environmental Report for the project to minimize impacts to the natural environment. Enbridge also completes post-construction reporting to the OEB, to demonstrate compliance with the mitigation measures and confirm restoration activities have been completed.

3. Are there any specific concerns or priorities that you or your community or organization associate with future natural gas planning (e.g., community involvement in the planning of natural gas infrastructure expansion, relevant economic opportunities, and partnerships)?

No comment

# **Theme 4: Future of Natural Gas Expansion**

1. What applications (such as residential, industrial, commercial, or agricultural) should natural gas expansion focus on in the future? Where do you think further public investment in natural gas infrastructure makes sense and why?

The natural gas system provides access to an affordable, safe, reliable, and resilient energy source. To ensure the government is offering equitable access to affordable and reliable energy infrastructure, any community that expresses interest in access to the natural gas system should be considered for community expansion, as it provides opportunities to move away from higher emitting fuels for energy use. For example, homeowners using propane or heating oil are more likely to express interest in connecting to natural gas, as seen in Enbridge's recent market research survey results. Across six communities surveyed in 2022, the average percentage of respondents likely, very likely, or extremely likely to connect to natural gas if it became available was 77% in total. Looking at respondents with propane and oil fueled space heating, the average percentage likely/very likely/extremely likely to connect to natural gas was higher—85% and 80% respectively.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> The numbers provided are the average across six communities surveyed in 2022: Bobcaygeon, Cedar Springs, Cherry Valley, Eganville, Hidden Valley, Neustadt, Sanford, and Selwyn.



Economic development in the industrial and agricultural sectors can also be substantially bolstered by enhanced access to natural gas. Natural gas not only presents an affordable, reliable, and resilient alternative to higher-emission fuels but also fosters reductions in both operational expenses and GHG emissions for businesses. Furthermore, the strategic expansion to areas suitable for RNG production holds great promise for stimulating economic opportunities in the low-carbon fuel sector. Enbridge recommends that the government considers RNG production as an integral component of economic development initiatives.

In summary, Enbridge recommends that the government promotes equitable community expansion of the natural gas system to provide affordable, reliable, and resilient energy while reducing emissions and driving economic development in industrial and agricultural sectors, with support for RNG for low carbon fuel production.

# 2. Alternatively, what other energy technologies could be considered instead of natural gas expansion?

Low-carbon hydrogen and RNG can both be blended into the gas system directly, reducing the carbon intensity of natural gas and providing customers choice along their energy transition journey. Leveraging these technologies paired with natural gas expansion allows Ontarians a resilient decarbonization opportunity. Access to gas infrastructure in more rural communities allows for the connection of more remote sources of RNG, increasing the availability of this low carbon fuel that would otherwise not be brought to market. Future public investment in developing RNG or low-carbon hydrogen projects and their connection to the natural gas system are in alignment with government policy and safe bet actions Enbridge has proposed to undertake to advance energy transition in Ontario. Investments in these technologies support an orderly energy transition, and they provide cost-effective secure, reliable, and resilient energy for customers during the transition to a low-carbon economy.

#### 3. What other alternative government initiatives do you think could be in place to support costeffective home heating in Ontario?

New customers that elect to install a hybrid heating system, an electric heat pump paired with a condensing natural gas furnace, not only can reduce their emissions by converting to natural gas from a higher-emitting energy source, but also reduce their annual volumes as compared to a natural gas furnace, generating even greater emissions reductions. All while connecting to the safe, reliable, resilient, and affordable gas system. Expanding the Clean Home Heating Initiative can further reduce GHG emissions in Ontario for existing and prospective natural gas customers while also leveraging existing available electricity capacity without adding to the peak demand.

Additionally, Enbridge also recommends exploring alternatives to ratepayer funding, such as government subsidies funded through taxes, akin to electrical subsidies. This approach which would cost less than one half of a percent compared to annual electrical subsidies can help in ensuring equitable access to the affordability, reliability, and resiliency benefits that the gas system offers.

# 4. Do you think the government should have a larger role in identifying potential natural gas expansion projects to receive public funding, based on advice from the OEB and the project proponents?

No comment.



# 5. How does natural gas expansion fit with provincial, municipal, or community-level sustainability objectives as well as ongoing electrification trends? What are the potential risks and benefits?

Ontario's gas system will continue to be instrumental to the province's energy transition, as emphasized in the Ministry of Energy's "Powering Ontario's Growth Report".<sup>6</sup> The gas system is crucial today, as natural gas provides 30% of the province's energy, and it is critical for enabling the delivery of low-carbon fuels, such as hydrogen and RNG, both of which are essential components in the transition away from higher emitting energy sources. Additionally, the CEO of the Independent Electricity System Operator (IESO) highlighted the significance of natural gas in Ontario's energy transition in an op-ed for the Toronto Star.<sup>7</sup> Moreover, as Ontario continues to build its "Driving Prosperity and Critical Minerals strategies", the natural gas system plays a pivotal role in supporting jobs and economic growth in Ontario.

#### Benefits of the Gas System in the Energy Transition:

- **Transition Enabler:** The "Powering Ontario's Growth Report" underscores the role of the natural gas system in facilitating a smooth transition away from higher emitting energy sources, ensuring the reliability and affordability of the energy supply, as articulated by the Ministry of Energy.
- **Resiliency:** The gas system is highly resilient not only to large changes in energy demands, but to extreme weather events. For example, the derecho that swept through Ontario in 2022, which according to the Insurance Bureau of Canada was the sixth largest insured loss event in Canada.<sup>8</sup> Resiliency during these events is critical, as disruptions to energy delivery can cause widespread economic and societal impacts, including loss in productivity, as well as health and safety concerns for customers relying on energy for building space conditioning purposes. Access to Enbridge's gas system provides prospective customers the opportunity to benefit from the inherent resilience of the gas pipeline system through uninterrupted delivery of natural gas during extreme weather events. In addition, where prospective customers elect to install generators, electricity outages can be mitigated.
- Low-Carbon Fuel Delivery and Decarbonization Support: The gas system can efficiently deliver low-carbon fuels, including hydrogen and RNG. Delivery of these low carbon fuels aligns with the Powering Ontario's Growth report and the Canadian Energy Regulator's "Canada's Energy Future 2023" report, both of which focus on the need for a diversified approach to decarbonization.<sup>9</sup> Hydrogen and RNG can contribute significantly to the reduction of carbon emissions across all sectors and, in particular, heavy industry, transportation, and power generation together helping to achieve Ontario's sustainability objectives. Customers attaching to the gas distribution system to switch away from higher emitting fuels immediately realize GHG emission reductions, which can grow over time as the gas supply is decarbonized. This supports Ontario's 2030 emissions reductions targets and a net-zero future.
- Reliability and Flexibility: Reliable energy delivery is especially critical on the hottest and coldest days of the year when Ontarians are most reliant on energy supply to cool and heat their homes and businesses. Meeting seasonal and peak demands is a requirement of the system's design and is fundamental to delivering the energy Ontarians need and want. Enbridge's gas system is highly reliable, consistently meeting both seasonal and peak gas demands with few, if any, outages. As highlighted by the IESO CEO in her op-ed, natural gas provides a reliable and

 <sup>8</sup> Insurance Bureau of Canada. (2022 June 15). Derecho Storm Ranks 6th Largest Insured Loss Event in Canadian History. https://www.ibc.ca/news-insights/news/derecho-storm-ranks-6th-largest
 <sup>9</sup> <u>https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2023/canada-energy-futures-2023.pdf</u>

<sup>&</sup>lt;sup>6</sup> https://www.ontario.ca/files/2023-07/energy-powering-ontarios-growth-report-en-2023-07-07.pdf

<sup>&</sup>lt;sup>7</sup> <u>https://www.thestar.com/opinion/contributors/how-ontario-is-working-towards-a-zero-emissions-energy-grid/article\_48db21d2-506a-5f7f-a338-fda3034a36af.html</u>



flexible energy source, which is crucial for maintaining energy security and affordability in the province's transition away from higher emitting energy solutions.

• **Support for Economic Growth:** The gas system plays an essential role in supporting Ontario's Driving Prosperity and Critical Minerals strategies while creating jobs and driving economic prosperity.

To that effect, Enbridge would like to highlight some of the areas in Ontario that would benefit from increased access to natural gas from an economic development and job creation standpoint, specifically:

- Enbridge is seeing an increased interest in the Nanticoke (Haldimand County) area across all sectors. This area, located at the end of Enbridge's natural gas infrastructure at Lake Erie, would benefit from increased access to the natural gas system.
- Enbridge is also seeing an increased interest across all sectors in Eastern Ontario, specifically in the area roughly from Brockville to Cardinal. From ports to heavy industry, to greenhouses and more, this area is growing substantially and would benefit from increased access to the natural gas system for jobs and economic development. In addition, with consideration for the future decarbonization of heavy industry and ports in this area, expanded access to the gas system enables an economical means of providing RNG and or low-carbon hydrogen for these hard to decarbonize sectors.
- Southwestern Ontario is, across the board, showing substantial industrial growth with virtually all areas being looked at for expansion by major industrial clients and related supplier industries to those clients.
- In Northern Ontario, the North Bay-Sudbury-Espanola area would benefit as well from increased access to the natural gas system for economic growth and job creation.
- The agricultural industry across Ontario would benefit from enhanced access to the gas system by reducing costs in the industry, specifically those related to grain drying and building heat.
- While conversion costs remain a barrier, many Indigenous communities remain interested in increased access to affordable energy options.

In summary, the expansion of the natural gas system in Ontario is essential for the energy transition and aligns with both sustainability and economic growth objectives. It serves as a reliable and costeffective means of delivering low-carbon fuels like hydrogen and RNG, contributing to the reduction of carbon emissions while fostering job creation and economic prosperity in the region.

# Conclusion

If you have any questions or require additional information, please do not hesitate to contact Islam Elsayed, Senior Advisor, Government Affairs (<u>islam.elsayed@enbridge.com</u>).

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# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 2

#### Question(s):

- a) Please confirm that home owners are eligible for up to \$5,000 grants and \$40,000 in interest free loans from the federal government for qualifying cold climate air source heat pump installations.
- b) Please provide any studies or analysis that Enbridge has completed on the impact of the above-references \$5,000 grant and interest free loans for air source heat pumps on the likely number of customers attaching to the proposed pipeline.
- c) Please provide any studies or analysis that Enbridge has completed on the impact of current high gas prices on the likely number of customers attaching to the proposed pipeline

#### Response:

a) Subject to meeting program eligibility requirements, certain homeowners are currently eligible for up to \$5,000 in grants from the federal government for qualifying air source heat pumps, as detailed at the following link:

https://www.enbridgegas.com/residential/rebates-energyconservation/homeefficiency-rebate-plus

As a natural gas utility, Enbridge Gas is not in a position to provide information regarding programs for electric end-use equipment which the Company does not administer. Please refer to the Canada Greener Homes program website for information on loans currently offered by the federal government for qualifying air source heat pumps:

https://natural-resources.canada.ca/energy-efficiency/homes/canada-greenerhomesinitiative/canada-greener-homes-grant/greener-homes-grant-ontario/24835 Please note that the information set out above, including available grants and program eligibility requirements, is current as of the date of this filing and is subject to change.

In addition, based on the Company's current understanding, as of November 10, 2023, NRCan is halting the intake into the Canada Greener Homes program in Q1 2024; however all consumers who have entered the program before this cut-off date and complete their participation within the program rules by Q1 2027 are expected to be paid the rebates currently available from Canada Greener Homes. The Contribution Agreement with Enbridge Gas and NRCan remains in effect for the full term.

## b - c)

Enbridge Gas has not completed any studies or analyses on the topics referenced by ED. The attachment forecast is based on the energy interests expressed by actual residents and business-owners within the Project area, which intrinsically incorporates all factors including financial and non-financial considerations. The Company has no reason to believe that the attachment forecast is inaccurate.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-34 Page 1 of 2

# ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

#### Question(s):

- a) Please confirm that Canada's 2030 Emissions Reduction Plan includes a projection for carbon emissions associated with buildings to decline by 41% by 2030 from 2019 levels (to 53 CO2e from 91 CO2e) and that it plans for a 22% reduction by 2026 from 2019 levels (to 71 CO2e from 91 CO2e).<sup>1</sup> If not, please explain.
- b) Please confirm that Canada's 2030 Emissions Reduction Plan has formal legal status under s. 9 of the Canadian Net-Zero Emissions Accountability Act in relation to the legally binding targets under that Act.<sup>2</sup> If not, please explain.
- c) Please confirm that Canada has committed to net-zero emissions from electricity generation by 2035. If not, please explain.

#### Response:

 a) Not confirmed. The Government of Canada has set an economy-wide emissions reduction target of 40-45% below 2005 levels by 2030. This is stated in the 2030 Emissions Reduction Plan, on page 15.<sup>3</sup>

On June 29, 2021, the Canadian Net-Zero Emissions Accountability Act (the Act) became law. The Act marks the first time a Canadian government has legislated emissions reductions accountability to address climate change. The Act sets legal requirements for current and future governments to plan, report, and course correct on the path to netzero emissions by or before 2050. It enshrines in legislation Canada's 2030 Nationally Determined Contribution under the Paris Agreement, which is to reduce emissions by 40-45% below 2005 levels, as announced by Prime Minister Trudeau in April 2021.

<sup>&</sup>lt;sup>1</sup> https://www.canada.ca/en/environment-climate-change/news/2022/03/2030-emissions-reduction-plan--canadas-next-steps-for-clean-air-and-a-strong-economy.html

<sup>&</sup>lt;sup>2</sup> Canadian Net-Zero Emissions Accountability Act, s. 9.

<sup>&</sup>lt;sup>3</sup> En4-460-2022-eng.pdf (publications.gc.ca)

On page 88 of the same document, the Government of Canada has provided the reduction potential of various sectors, including the building sector; however, it is noted in the document that these are projected sectoral contributions, not sectoral targets, and that emissions reductions ultimately contributed by each sector are likely to vary over time. On pages 36 and 37, the Government of Canada has provided a high-level overview of actions and investments being taken to achieve greenhouse gas (GHG) reductions within the building sector; however, the GHG reductions to be achieved from these actions and investments are not stated. Development and enactment of policies and regulations is required to implement these actions and investments.

- b) Confirmed. However, it is important to note that the *Canadian Net-Zero Emissions Accountability Act* does not mandate specific targets for different sectors of the economy or jurisdictions. Rather, the statute requires the federal government to establish national targets and assess and report on the progress made over time.
- c) Confirmed. Environment and Climate Change Canada (ECCC) published the draft Clean Electricity Regulations (CER) on August 19, 2023, which is intended to drive progress towards reducing greenhouse gas emissions from electricity generation beginning in 2035. To support affordability and reliability while achieving net zero, ECCC has proposed a technology neutral and non-prescriptive approach, which will allow solutions such as carbon capture and storage, co-firing fossil fuels with lowcarbon fuels or switching to low-carbon fuels to achieve compliance.<sup>4</sup> Additionally, ECCC is also proposing to allow electrical generation units commissioned before 2025 to become subject to the CER at the end of their prescribed life (20 years) and to operate unabated during emergency circumstances.

<sup>&</sup>lt;sup>4</sup> https://www.gazette.gc.ca/rp-pr/p1/2023/2023-08-19/html/reg1-eng.html.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-35 Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

#### Question(s):

 a) Please confirm that the following chart accurately depicts a projection of emissions reductions from buildings per Canada's 2030 Emissions Reduction Plan.<sup>1</sup> If not, please prepare a chart that Enbridge believes is accurate:



b) Does Enbridge agree that Canada's 2030 Emissions Reduction Plan is likely to impact the customer attachment forecast through future policies that cause some customers to choose electric heat pumps over gas? If not, please explain.

#### Response:

a) The data for the graph on page 88 of Canada's 2030 Emissions Reduction Plan is the potential greenhouse gas (GHG) reductions by sector, not a planned amount or target. The information is publicly available on the Government of Canada's

<sup>&</sup>lt;sup>1</sup> For the underlying numbers, see here: 2030 Emissions Reduction Plan – Canada's Next Steps for Clean Air and a Strong Economy (link)

website.<sup>2</sup> The graph provided by Environmental Defence appears to be an accurate representation of the information available on that website.

b) No. The attachment forecast for the proposed Project is based on the known energy preferences expressed by actual residents and business-owners within the Project area, which intrinsically incorporate all factors including financial and non-financial considerations. The Company has no reason to believe that the attachment forecast is inaccurate. Future policies arising from Canada's 2030 Emissions Reduction Plan have yet to be drafted or proposed, so any material impacts to the customer attachment forecast cannot yet be clearly understood.

Enbridge Gas expects that Canada's 2030 Emissions Reduction Plan will require changes in the use of natural gas; however, it is not known at this time what those changes might be due to:

- i. Factors that could increase the volume of gas flowing through the system including fuel switching from higher emitting fuels to natural gas, and displacement of natural gas via blended fuels like hydrogen.
- ii. Some customers could maintain their current natural gas consumption and pair it with carbon capture, utilization and storage (CCUS) or renewable natural gas (RNG).
- iii. The adoption of emissions reduction energy solutions like hybrid heating would reduce customers' annual natural gas consumption; however, it may not reduce Enbridge Gas's design day demand or design hour demand, which is what is used to design its natural gas transmission and distribution systems.

Enbridge Gas's existing 150,000 kms of underground energy infrastructure provides energy resiliency and optionality at a low cost; therefore, existing customers could retain their peak capacity in order to preserve their ability to utilize existing gas generators, gas fireplaces, gas cooktops, or gas pool heaters when/if required. In such instances, even if such customers replace certain of their existing natural gas appliances with electric appliances (which would come at an added capital cost and is unlikely to occur immediately), peak natural gas demand could remain unchanged. Further, if customers place increased value on energy resilience and optionality in the future (e.g., should the frequency and severity of extreme weather events increase, or electrical system reliability/resilience decline) efficiency gains made via electrification could be offset by growth in customers seeking resiliency via gas system-based back-up.

<sup>&</sup>lt;sup>2</sup> https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/emissions-reduction-2030.html

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# ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

# Question(s):

- a) Please provide a list of grants and loans available to customers in the proposed project area to install cold climate air source heat pumps.
- b) Please confirm whether each of the following statements is true. If not, please explain why:
  - i) The federal government is now providing \$5,000 incentives for customers to switch to high-efficiency electric heat pumps as part of its Greener Homes Grant;<sup>1</sup>
  - ii) The federal government is now providing an additional \$5,000 in incentives for customers to switch from oil to high-efficiency electric heat pumps if they earn a median income or lower (e.g., \$122,000 after-tax income for a family of 4 in Ontario) through the Oil to Heat Pump Affordability Program;<sup>2</sup> and
  - iii) The federal government is now providing up to \$40,000 in interest free loans, which can be put towards conversions to electric heat pumps, and not gas equipment, through the Greener Homes Loan.<sup>3</sup>
- c) Further to (b)(ii) above, please provide a table showing the median income for Ontario that serves as the eligibility threshold for the Oil to Heat Pump Affordability Program?
- d) Please provide an estimate of the number and percent of residents in the project area that would be eligible for Oil to Heat Pump Affordability Program. This could be done, for example, based on statistics for the percent households at or below the eligibility threshold in the area or region.
- e) Please compare the cost of converting from oil to (i) gas versus (ii) an electric cold climate heat pump, accounting for two rebates noted above.

<sup>&</sup>lt;sup>1</sup> https://natural-resources.canada.ca/energy-efficiency/homes/canada-greener-homes-initiative/canada-greener-homes-grant/23441

<sup>&</sup>lt;sup>2</sup> <u>https://natural-resources.canada.ca/energy-efficiency/homes/canada-greener-homes-initiative/oil-heat-pump-affordability-program-part-the-canada-greener-homes-initiative/24775</u>.

<sup>&</sup>lt;sup>3</sup> https://natural-resources.canada.ca/energy-efficiency/homes/canada-greener-homes-initiative/canada-greener-homes-loan/24286

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# Response:

a - c)

Please see the response at Exhibit I.ED-33 part a).

Please refer to publicly available websites for each program below:

- i. <u>https://www.enbridgegas.com/residential/rebates-energy-</u> <u>conservation/homeefficiency-rebate-plus</u>
- ii. <u>https://natural-resources.canada.ca/energy-efficiency/homes/canada-</u> <u>greenerhomes-initiative/oil-heat-pump-affordability-program-part-the-canada-</u> <u>greenerhomes-initiative/24775</u>
- iii. <u>https://natural-resources.canada.ca/energy-efficiency/homes/canada-greener-homes-loan/24286</u>
- d) The Company does not have the requested information regarding the number or percent of residents in the Project area that could be eligible for the Oil to Heat Pump Affordability Program. In addition, this is not a program that is administered by the Company.
- e) There are numerous factors that would require careful consideration in order to develop a consumer conversion cost comparison from oil to a non-natural gas energy solution (i.e., high-efficiency electric cold climate air source heat pumps which are the basis of ED's request). The Company does not have and cannot reasonably attain/assess this information at this time. Furthermore, consumer conversions from oil to non-natural gas energy solutions (i.e., high-efficiency electric cold climate air source heat pumps) and vice versa, are not within the scope of the Company's natural gas leave to construct Applications. Please see the response at Exhibit I.ED-1 part a) for more information.

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# ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

#### Question(s):

- a) Please confirm how much additional annual subsidy individuals and families qualified under the Ontario Electricity Support Program can receive if they heat their home with electricity?
- b) Please provide an estimate of the number and percent of residents in the project area that would be eligible for the Ontario Electricity Support Program. This could be done, for example, based on statistics for the percent of households receiving social assistance.

#### Response:

a - b)

As a natural gas utility Enbridge Gas is not in a position to provide information regarding electricity subsidies or related support programs which the Company does not administer. The Company understands that information regarding the same is publicly available via the following OEB webpage:

https://ontarioelectricitysupport.ca/FAQ

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# ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

#### Question(s):

- a) Does Enbridge agree that government policies or market forces related to decarbonization could impact the customer attachment or revenue forecasts? If not, please justify the response.
- b) What are the lifetime volumes of gas (m3) and carbon emissions (CO2e) corresponding to the 40-year customer attachment and revenue forecasts in relation only to emissions from end-use combustion?
- c) What are the lifetime carbon emissions (CO2e) corresponding to the 40-year customer attachment and revenue forecasts in relation only to upstream emissions (i.e. extraction and transportation)?
- d) In EB-2020-0066, Exhibit JT1.714, Enbridge estimated 14 gCO2e/MJ related to upstream extraction, processing, transportation and distribution of gas.<sup>1</sup> Does Enbridge still believe this is the best estimate of upstream emissions? If not, please provide Enbridge's best estimate of upstream emissions.
- e) What are the lifetime carbon emissions (CO2e) corresponding to the 40-year customer attachment and revenue forecasts in relation only to unburned methane from customer equipment (i.e. extraction and transportation)?<sup>2</sup>
- f) What is Enbridge's best estimate of the emissions (gCO2e/MJ & tCO2e/m3) arising from unburned methane emissions from customer equipment?
- g) Please confirm that the methane emissions cited in the following reference are only the methane emissions from combustion, not from leaks, and if Enbridge disagrees,

<sup>&</sup>lt;sup>1</sup> See page 398: http://www.rds.oeb.ca/HPECMWebDrawer/Record/680679/File/document

<sup>&</sup>lt;sup>2</sup> Any of the following sources could be used as an emissions factor: Quantifying Methane Emissions from Natural Gas Water Heaters (link); Unburned Methane Emissions from Residential Natural Gas Appliances (link); An Estimate of Natural Gas Methane Emissions from California Homes (link); Beyond-the-Meter: Unaccounted Sources of Methane Emissions in the Natural Gas; Distribution Sector (link); Methane and NOx Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes (link).

please explain with excerpts: Ontario Ministry of the Environment and Climate Change. (2017, November). Guideline for Quantification, Reporting and Verification of Greenhouse Gas Emissions. Table 20-3 and Table 20-4. <u>https://prod-environmental-registry.s3.amazonaws.com/2018-01/013-1457\_d\_Guide.pdf</u>.

h) What are the emissions from the combustion of gas in Ontario (gCO2e/MJ & tCO2e/m3)?

## Response:

a) No. The Project-specific attachment/revenue forecast(s) is based on the current known energy preferences expressed by actual residents and business-owners within the Project area, which intrinsically incorporate all factors including financial and non-financial considerations. The Company has no reason to believe that the attachment forecast is inaccurate.

Enbridge Gas also notes that the market research undertaken in Q3 2022, set out in Exhibit B, Tab 1, Schedule 1, Attachment 6, indicates that with the equipment conversion cost, an additional surcharge for space and water heating equipment and the federal carbon pricing program, 82% of respondents overall are likely to convert their space heating systems and/or water heaters to natural gas.

b - c) and e)

Enbridge Gas does not prepare 40-year customer attachment, demand and/or revenue forecasts, and preparing the same in response to ED's request would be onerous and is not reasonably possible to do within the timeframe established by the OEB for the current proceeding. Accordingly, Project-related lifetime gas volumes and greenhouse gas emissions related to end-use combustion, upstream emissions and un-burned methane emissions cannot reasonably be estimated at this time.

d) On September 8, 2023, Environment and Climate Change Canada (ECCC) issued a pre-publication notice of a proposed change to the carbon intensity of natural gas to be used within the Clean Fuel Regulation<sup>3</sup> for natural gas consumed within Canada. The proposed values are based on 2021 data. The average emissions from the upstream production, transportation and distribution of natural gas consumed within Canada proposed within the Clean Fuel Regulation are 10.34 gCO<sub>2</sub>e/MJ. It should be noted that the origination of gas supplies consumed within Canada will vary regionally and may differ from the proposed national average value.

<sup>&</sup>lt;sup>3</sup> Environment and Climate Change Canada. 2023.Pre-publication: Proposed update to the carbon intensity of natural gas – early notice. <u>https://data-donnees.ec.gc.ca/data/climate/framework/fuel-life-cycle-assessment-model/English/Pre-publications-for-2024/2023.09-Proposed-update-to-the-carbon-intensity-of-natural-gas-early-notice/Readme-Pre-publication-Proposed-update-to-the-carbon-intensity-of-natural-gas-early-notice.pdf.</u>

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- f) Based on the 2023 National Inventory Report (NIR)<sup>4</sup> Enbridge Gas estimates the amount of unoxidized (i.e., unburned) methane in the combustion of natural gas in residential equipment at 0.037 gCH<sub>4</sub>/m<sup>3</sup> (9.25 x 10-7 tCO2e/m<sup>3</sup> or 0.0238 gCO<sub>2</sub>e/ MJ<sup>5</sup>) of natural gas.
- g) Confirmed.
- h) As reported in the 2023 NIR, the emissions from combustion of natural gas in residential, construction, commercial/institutional and agricultural sectors in Ontario are 0.001932 tCO<sub>2</sub>e/m<sup>3 6</sup> or 49.7 gCO<sub>2</sub>e/MJ<sup>7</sup>.

<sup>&</sup>lt;sup>4</sup> Environment and Climate Change Canada. 2023. National Inventory Report. Table A6.1-3. <u>En81-4-</u> <u>2021-2-eng.pdf (publications.gc.ca)</u>.

<sup>&</sup>lt;sup>5</sup> As converted to energy units using Enbridge Gas Inc 2022 Gas Composition and High Heating Value Data. <u>Enbridge Gas 2022 Gas Composition and High Heating Value Data PDF</u>

<sup>&</sup>lt;sup>6</sup> Environment and Climate Change Canada. 2023. National Inventory Report. Tables A6.1-1 and A6.1-3. <u>En81-4-2021-2-eng.pdf (publications.gc.ca).</u>

<sup>&</sup>lt;sup>7</sup> As converted to energy units using Enbridge Gas Inc 2022 Gas Composition and High Heating Value Data. <u>Enbridge Gas 2022 Gas Composition and High Heating Value Data PDF.</u>

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-39 Plus Attachment Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

#### Question(s):

- a) Is the price of gas and/or the incentives available for electric heat pumps impacting the customer attachments in community expansion projects? Please explain the answer.
- b) To help us explore the question in (a), please complete the following tables and prepare a chart for each showing the trendline. For the second table, please divide the annual forecast by 12 to generate a monthly forecast figure.

Customer Attachments in Community Expansion Locations by Month				
	Jan 2020	Feb 2020		Dec 2022
Number of				
attachments				

Customer Attachments in Community Expansion Locations by Month Percent of Forecast				
	Jan 2020	Feb 2020		Dec 2022
Number of customer attachments as % of forecast				

#### Response:

a) Enbridge Gas has not completed any studies or analyses on the topics in question. The Project-specific attachment forecast is based on the energy interests expressed by actual residents and business owners residing/located within the Project area, which intrinsically incorporates all factors, including financial and non-financial considerations. The Company has no reason to believe that the attachment forecast is inaccurate.

- b) Please see Attachment 1 to this response. Please note:
  - a. The Company forecasts and tracks actual attachments by year and not by month. As such, the Company has provided the requested information in an annual format and not a monthly format. The Company cautions against using a trendline for the purposes described by ED in the interrogatory, as there could be multiple financial and non-financial drivers of the rate of attachment in different communities.
  - b. The Company cautions against making conclusions based on selective factors such as those described by ED in the interrogatory. There are several factors that can impact/have impacted actual attachment rates, including but not limited to:
    - i. Government-imposed lockdowns on construction activities due to the COVID-19 pandemic; and,
    - ii. Supply chain constraints caused by geo-political conflicts and the COVID-19 pandemic, impacting the cost and availability of input materials for both Enbridge Gas and home construction activities.
  - c. In some cases, lower attachments rates in later years can be driven by more customers attaching to the natural gas system in earlier years than forecasted (for example see Milverton and Rostock/Wartburg, Prince Township, and Fenelon Falls in Attachment 1). This early attachment activity can be an indication of high customer interest in attaching to the natural gas system, rather than an indication of a declining trend in interest.
  - d. For the purposes of the figures provided in Attachment 1 to this response, "actual attachment" is defined as a customer that is consuming natural gas, as opposed to a customer with a meter that is installed but not yet consuming natural gas.

#### Comparison of Forecasted and Actual Customer Attachments

Milverton and Rostock/Wartburg (exceeded 10 yr customer Forecast)	2017	2018	2019	2020	2021	2022	2023
Forecast Customer Attachments (#/vr)	0	185	163	67	51	42	50
Actual Customer Attachments (//)//	23	296	133	125	61	31	48
Actual customer Actual Customers (1797)	2.5	100.00/	133	100.00/	110.00/	72.00/	00.00/
Number of Actual Customer Attachments as % of Forecast	IN/A	160.0%	81.6%	180.0%	119.6%	/3.8%	96.0%
Kettle and Stoney Point First Nation and Lambton Shores	2017	2018	<u>2019</u>	2020	2021	2022	2023
Forecast Customer Attachments (#/yr)	158	68	86	18	14	17	15
Actual Customer Attachments (#/yr)	9	171	27	44	31	12	6
Number of Actual Customer Attachments as % of Forecast	5 7%	251 5%	31.4%	244 4%	221 4%	70.6%	40.0%
	5.770	2011070	51170	211170	22211/0	/0.0/0	101070
Moraviantown First Nation (exceeded 10 yr customer Forecast)		2018	2019	2020	2021	2022	2023
Forecast Customer Attachments (#/yr)		23	5	2	2	1	0
Actual Customer Attachments (#/yr)		21	11	2	4	1	0
Number of Actual Customer Attachments as % of Forecast		91%	220%	100%	200%	100%	N/A
Prince Township (mot the 10 vr customer Forecast)		2019	2010	2020	2021	2022	2022
		2010	2019	2020	2021	2022	2023
Forecast Customer Attachments (#/yr)		76	68	26	19	15	19
Actual Customer Attachments (#/yr)		113	47	34	14	8	7
Number of Actual Customer Attachments as % of Forecast		149%	69%	131%	74%	53%	37%
Fenelon Falls		2018	2019	2020	2021	2022	2023
Eorecast Customer Attachments (#/vr)		0	122	3/1/	383	307	216
Actual Customer Attachments (#/yr)		15	123	377	00	507	102
Actual customer Attachments (#/yr)		15	304	2/2	δU	60	102
Number of Actual Customer Attachments as % of Forecast		N/A	296%	79%	21%	21%	47%
Chippewa of the Thames First Nation (exceeded 10 yr customer Forecast)			2019	2020	2021	2022	2023
Forecast Customer Attachments (#/vr)			19	18	1	1	0
Actual Customer Attachments (#/vr)			22	12	5	6	0
Actual customer Actualments (#797)			23	720/	5000/	6000/	0
Number of Actual Customer Attachments as % of Forecast			121%	72%	500%	600%	N/A
Saugeen First Nation				2020	2021	2022	2023
Forecast Customer Attachments (#/yr)				30	27	8	6
Actual Customer Attachments (#/vr)				14	10	5	5
Number of Actual Customer Attachments as % of Enrecast				17%	37%	63%	83%
Number of Actual Customer Attachments as 76 of Porecast				4770	3170	0376	03/0
Northshore and Peninsula Rd (exceeded 10 yr customer Forecast)				2020	2021	2022	2023
Forecast Customer Attachments (#/yr)				36	32	14	9
Actual Customer Attachments (#/yr)				42	78	27	9
Number of Actual Customer Attachments as % of Forecast				117%	244%	193%	100%
	1						
Courses Jaland First Nation				2020	2024	2022	2022
				2020	2021	2022	2023
Forecast Customer Attachments (#/yr)				79	211	207	110
Actual Customer Attachments (#/yr)				29	280	120	66
Number of Actual Customer Attachments as % of Forecast				37%	133%	58%	60%
Rrunner (Perth Fast)						2022	2023
Corosset Customer Attachments (#(ur)						11	12
rolecast customer Attachments (#/yr)						11	15
Actual Customer Attachments (#/yr)						35	5
Number of Actual Customer Attachments as % of Forecast						318%	38%
Burk's Falls						2022	2023
Forecast Customer Attachments (#/vr)						12	14
Actual Customer Attachments (#/yr)						22	2.7 Q
						3	0
Number of Actual Customer Attachments as % of Forecast						25%	5/%
Kenora District (Highway 594)						2022	2023
Forecast Customer Attachments (#/yr)						9	8
Actual Customer Attachments (#/yr)						16	10
Number of Actual Customer Attachments as % of Forecast						178%	125%
Hamber of Actual Castomer Actualments as A of Porecast						17070	12570
						2022	2022
Stanley's Olde Maple Farms						2022	2023
Forecast Customer Attachments (#/yr)						4	4
Actual Customer Attachments (#/yr)						10	2
Number of Actual Customer Attachments as % of Forecast						250%	50%
Halidmand Shores						2022	2022
						2022	2023
Forecast customer Attachments (#/yr)						30	27
Actual Customer Attachments (#/yr)						0	56
Number of Actual Customer Attachments as % of Forecast						0%	207%
TOTAL	2017	2018	2019	2020	2021	2022	2023
Forecast Customer Attachments (#/vr)	158	352	464	620	740	678	491
Actual Customer Attachments (#/yr)	20	616	605	520	540	227	22/
	32	010	12001	575	303	557	524
number of Actual Customer Attachments as % of Forecast	20%	1/5%	130%	93%	/0%	50%	00%

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# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

#### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

#### Question(s):

- a) What is the annual average consumption (m3) and annual average distribution revenue (\$) per residential customer assumed by Enbridge in this proceeding?
- b) What is the annual average consumption (m3) and annual average distribution revenue (\$) per residential customer being realized by Enbridge in its other community expansion projects? Please provide all underlying calculations. If possible, please make an adjustment for customers attaching mid-year.

#### Response:

- a) The weighted average consumption and annual distribution revenue for a residential customer within the Eganville Project scope is included in Attachment 1 to Exhibit I.ED-25.
- b) The analysis set out in Attachment 1 to this response was completed by taking the sum of all monthly consumption and distribution revenue data for all residential customers attached to in-service NGEP Phase 1 and 2 projects (across all rate zones) and dividing by the total number of bills (or data points) to derive a single monthly average per customer. The summation of the monthly averages was then taken to derive an average annual consumption and distribution revenue total.

Based on the analysis completed, the annual average consumption for a residential customer is 2,354 m3/year and the annual average distribution revenue for a residential customer is \$465.

Assumptions and Notes:

• Consumption and revenue data for cycles of 27 to 33 days were used. Shorter consumption cycles were omitted as they would not be fully representative of an average month.

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- Consumption values of zero were removed to eliminate customers that have not yet started consuming gas (duration between install and HVAC unlock).
- The sample of projects relied upon includes variable quantities/quality of data from past NGEP projects across the Company's service territory. The quantity of attachment data available for each project varies depending on the size of the project and the in-service date. Therefore, calculated averages are weighted more heavily towards projects with more data points.

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Please see Exhibit I.ED-40 Attachment 1.xlsx on the OEB's RDS
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## ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

## Question(s):

- a) Please reproduce the table provided in EB-2022-0200, Exhibit JT3.16, adding rows to show: the average revised forecast PI (weighted by final cost) and the total of column xi (shortfall).
- b) Please explain the reasons for the shortfalls in the Fenelon Falls and Scugog Island projects.

## Response:

- a) Please see Attachment 1 for EB-2022-0200, Exhibit JT3.16, which includes the table requested by ED. The weighted average revised forecast PI is 0.63.<sup>1</sup> The total shortfall for projects with a revised forecast PI of less than 1.0 is \$44,904,484. Enbridge Gas cautions against drawing conclusions regarding the Project using selective information from other projects. Each project is unique with various considerations that may not apply to other projects.
- b) The reasons for shortfalls in Fenelon Falls and Scugog Island Community Expansion projects are explained as follows:
  - i) <u>Fenelon Falls</u>
    - Complexity of Construction:

While the original project estimate was prepared with the best information available at the time, the cost of construction proved to be significantly higher, mainly driven by encountering significantly more rocks than originally anticipated, driving up the project cost for both mains and services.

<sup>&</sup>lt;sup>1</sup> The average revised forecast PI (weighted by final cost) includes the projects that are considered inservice.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-41 Plus Attachment Page 2 of 3

• Labour and Construction:

Final Labour and Construction costs were higher than originally estimated, due to: (i) changes to methods of construction; (ii) unanticipated Ministry of Transportation (MTO) permit requirements to cross the MTO highway at a deeper level than anticipated at all of the tie-in locations for the Sunderland Reinforcement work; (iii) an additional main was added as a result of the MTO permit requirement and the Regional Conservation Authority within the distribution system (non-LTC portion of the project); (iv) additional odorization requirements not included in original control budget; and (v) increased cost for upsizing of 1.5 km of Nominal Pipe Size (NPS) 4 steel (ST) to NPS 6 ST to feed a large commercial customer.

Additional External Costs:

Final External Costs were higher than originally estimated, due to: (i) additional geotechnical and hydrogeological work; (ii) external pipeline inspection; and (iii) land/easement challenges which required the project team to lay extra mains and easements to work around the areas in question.

- ii) Scugog Island First Nation
  - Inflation:

Project estimates were forecast and filed with the OEB in December 2017. Construction of the Project was not completed until July 6, 2020, resulting in overall increased costs due to inflation.

• Complexity of Construction:

While the original project estimate was prepared with the best information available at the time, the cost of construction proved to be significantly higher, mainly driven by changes in the design and permitting stage requirements.

Labour and Construction:

Final Labour and Construction costs were higher than originally estimated, due to: (i) changes to methods of construction; (ii) unanticipated MTO permit requirements and related permit delays; (iii) the requirement to construct during the winter season; and (iv) the unprecedented and ongoing COVID-19 pandemic.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-41 Plus Attachment Page 3 of 3

• Additional External Costs:

Final External Costs were higher than originally estimated, due to: (i) additional geotechnical and hydrogeological work; (ii) external pipeline inspection; and (iii) pipeline conditioning, driven by the permitting delays and new required conditions.

Updated: 2023-05-05 EB-2022-0200 Exhibit JT3.16 Plus Attachment Page 1 of 4

## ENBRIDGE GAS INC.

## Answer to Undertaking from School Energy Coalition (SEC)

## <u>Undertaking</u>

Tr: 78

Subject to data availability, to provide responses to the portions of SEC-119(a) that were previously declined

## Response:

The requested information is unavailable in some instances and, in others, will require an onerous amount of data extraction that is not possible to complete within the timeframe provided for undertaking responses.

Further, as indicated in the response at Exhibit I.1.12-FRPO-21, certain information requested by SEC bears no relevance to the current Application because Enbridge Gas has not included any forecasted capital costs or revenue requirement adjustments associated with actual attachments to date for its community expansion projects in its proposed 2024 rate base; only the original forecast project costs have been included.

Enbridge Gas will report on the actual capital costs, actual customer attachments, and final project PI through future rebasing applications, following completion of the 10-year rate stabilization period(s) (RSP) and attachment forecast term(s) associated with each community expansion project, in accordance with the OEB's determinations in prior applications, including the Company's SES/TCS/HAF Application<sup>1</sup>.

## Updated Response:

/u

Pursuant to Enbridge Gas's letter dated April 11, 2023, in relation to Motions Day, please see below for the information sought in Exhibit I.2.6-SEC199 a)/Undertaking Exhibit JT3.16.

Table 1 summarizes the requested information for Community Expansion projects in execution to date. Additional information is available in Attachment 1 for all Community Expansion projects to date.

<sup>&</sup>lt;sup>1</sup> EB-2020-0094, Decision and Order, November 5, 2020, sections 3.2 and 3.3.

Updated: 2023-05-05 EB-2022-0200 Exhibit JT3.16 Plus Attachment Page 2 of 4

				Table 1						
(i) Project Name	(ii) Budgeted Capital Cost (\$)(1)	(iii) Forecast Cost (\$)(2)	(iv) Actual Capital Cost-to- date (\$)	(v) Forecast Final Capital Cost (\$)(3)	(vi) 10- year Forecast Customer Attachme nts (Total)(4)	(vii) Actual Customer attachmen ts to date (Total)(4)	(viii) Original Forecast Pl	(ix) Revised Forecast PI (based on most recent forecast cost)	(x) SES Term	(xi) Shortfall if the current Forecast Pl is less than 1.0 (\$)(5)
Milverton and Rostock/Wartburg	5,976,000	5,976,000	7,008,147	9,117,941	739	761	1.01	1.14	15	
Kettle and Stoney Point First Nation and Lambton Shores	2,095,000	2,095,000	2,097,092	2,884,545	364	394	1.03	0.90	12	328,155
Delaware Nation of Moraviantown	564,000	564,000	\$628,615	628,615	38	38	1.00	1.25	40	-
Prince Township	2,721,000	2,721,000	2,427,968	2,765,254	291	224	1.01	1.06	22	-
Fenelon Falls	46,878,981	46,878,981	55,493,796	64,425,880	1920	866	1.00	0.50	40	28,667,344
Chippewa of the Thames First Nation	1,863,000	1,863,000	1,169,065	1,244,199	45	49	1.00	1.00 (6)	40	
Saugeen First Nation	2,536,617	2,536,617	3,069,824	3,571,108	89	33	1.00	0.47	40	1,036,969
Northshore and Peninsula Rd	10,095,411	10,095,411	12,057,826	12,156,459	134	161	1.00	0.64	40	1,355,698
Scugog Island First Nation	16,550,837	16,550,837	27,714,665	32,177,771	810	454	1.00	0.52	40	12,896,120
Brunner (Perth East)	2,210,351	1,293,836	1,019,042	1,050,898	44	42	1.00	2.98	40	-
Burk's Falls	1,653,917	1,653,917	1,160,701	1,734,353	41	11	1.00	0.96	40	19,929
Kenora District (Highway 594)	1,551,582	1,551,582	1,785,436	1,803,174	30	35	1.00	0.55	40	448,867
Stanley's Olde Maple	820,779	820,779	830,674	838,714	11	12	1.00	0.78	40	118,874

Updated: 2023-05-05 EB-2022-0200 Exhibit JT3.16 **Plus Attachment** Page 3 of 4

Table 1 Continued										
(i) Project Name	(ii) Budgeted Capital Cost (\$)(1)	(iii) Forecast Cost (\$)(2)	(iv) Actual Capital Cost-to- date (\$)	(v) Forecast Final Capital Cost (\$)(3)	(vi) 10- year Forecast Customer Attachme nts (Total)(4)	(vii) Actual Customer attachmen ts to date (Total)(4)	(viii) Original Forecast Pl	(ix) Revised Forecast PI (based on most recent forecast cost)	(x) SES Term	(xi) Shortfall if the current Forecast PI is less than 1.0 (\$)(5)
Haldimand Shores	4,048,709	4,048,709	3,261,207	4,281,580	112	59	1.00	0.98	40	32,528
Mohawk of Bay of Quinte	10,715,495	10,715,495	-	10,715,495	179	-	1.00	-	40	-
Hidden Valley	3,463,661	3,339,388	-	3,339,388	110	-	1.00	-	40	-
Selwyn	6,041,151	4,502,425	-	4,502,425	87	-	1.00	-	40	-

Notes:

(1) The budgeted cost is based on the original estimated capex for the project

(2) The forecast cost is based on updated estimated capex (e.g., LTC filed project cost if applicable)

(3) The forecast final capital cost is based on the projected number of attachments. Attachments numbers are subject to change in the remaining year during the 10-year rate stability period

(4) The annual forecast and actuals customer attachments are provided in Attachment I

(5) for part (xi), the shortfall amount is based on the additional capital funding required and not the required revenue forecast shortfall to achieve a PI of 1.0

(6) The PI cannot be calculated as the current projected final capital cost is lower than the available funding of \$1,430,000. However, the rate stability period has yet to be concluded, and additional customers might be attached, which might drive the final cost to exceed the available funding.

Updated: 2023-05-05 EB-2022-0200 Exhibit JT3.16 Plus Attachment Page 4 of 4

Enbridge Gas will report on the actual capital costs, actual customer attachments, and final project PI through future rebasing applications, following the completion of the 10-year rate stabilization period(s) (RSP) and attachment forecast term(s) associated with each community expansion project, in accordance with the OEB's determinations in prior applications, including the Company's SES/TCS/HAF Application<sup>2</sup>.

Enbridge Gas cautions against making conclusions based on the information provided before completing the 10-year rate stabilization period associated with each community expansion project.

<sup>&</sup>lt;sup>2</sup> EB-2020-0094, Decision and Order, November 5, 2020, sections 3.2 and 3.3.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-42 Page 1 of 2

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

Preamble:

0

## Question(s):

- a) With respect to the revenue generated in the first 10 years, does Enbridge or do ratepayers bear the risk of average use being lower than forecast?
- b) With respect to the revenue generated in the final 30 years, does Enbridge or do ratepayers bear the risk of average use being lower than forecast?
- c) Please describe how regulatory adjustments relating to average use interact with the customers attached through community expansions. Please address both the first 10 years and final 30 years

## Response:

## a – c)

Consistent with the Company's commitments and the OEB's direction summarized in the OEB's Decision and Order on the Company's application for a System Expansion Surcharge, Temporary Connection Surcharge, and Hourly Allocation Factor (EB-2020-0094),<sup>1</sup> upon placing the Project into service, Enbridge Gas will apply a 10-year rate stability period (RSP) during which the Company will bear the risk of the Project attachment and revenue shortfall including average use being lower than forecast for community expansion projects. Enbridge Gas will file actual costs and revenues of the Project with the OEB for consideration for inclusion in rates in the rebasing application following the conclusion of the RSP. The OEB will

<sup>&</sup>lt;sup>1</sup> EB-2020-0094 OEB Decision and Order (November 5, 2020), pp. 8-10.

consider any questions about the treatment of any revenue surplus or shortfall beyond the RSP at that time.<sup>2</sup>

Rate adjustments related to average use are made to distribution rates to reflect changes in weather normalized average use.<sup>3</sup>

Average use adjustments are made to all rate class forecast volumes at the general service rate class level and are subject to OEB review and approval.

Customers attached through community expansion projects are charged the distribution rates in effect for the corresponding rate zone and rate class where the community expansion project is located. Community expansion customers are also charged the system expansion surcharge (SES) in addition to the distribution rates. The SES revenue forecast is not subject to the average use adjustment as part of the annual rate change application.

No different assumption for rate adjustments relating to average use is made during the 40-year project term. Therefore, ratepayers bear the risk/reward of variances in average use related to distribution rates. Enbridge Gas bears the risk/reward of variances in average use related to the SES revenue forecast.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Rate adjustments for average use are made as part of the annual incentive regulation rate change application.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-43 Page 1 of 2

## ENBRIDGE GAS INC.

## Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1

## Question(s):

- a) Please indicate how much revenue would need to be collected from customers over the final 30 years of this project to cover outstanding capital costs and ongoing O&M costs. Please provide all underlying calculations.
- b) Please complete the following table:

Required Revenue per Project Discounted Cash Flow Tables (\$,000)					
SES Revenue					
Distribution Revenue					
Total Revenue					
Years 11-40					
SES Revenue					
Years 11-40 Distribution Revenue					
Years 11-40 Revenue					
Percent of revenue in years 11-40					

## Response:

a) The combined System Expansion Surcharge (SES) and distribution revenue required to be collected over the final 30 years of the proposed Project to cover outstanding capital costs and ongoing O&M costs is \$26,949,249.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-43 Page 2 of 2

- Required Revenue per Project Discounted Cash Flow Tables (\$,000) \$18,277 SES Revenue **Distribution Revenue** \$14,616 **Total Revenue** \$32,893 Years 11-40 SES Revenue \$14,963 Years 11-40 Distribution Revenue \$11,986 Years 11-40 Revenue \$26,949 Percent of revenue in years 11-40 81.9%
- b) Please see the information provided below.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-44 Page 1 of 2

## ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit I, Tab 1, Schedule 1

## Question(s):

- a) Please provide a route map indicating which portions of the pipeline would be on private or public land.
- b) Please provide a map showing the trees that will need to be removed for the pipeline construction.
- c) Please provide satellite images of each portion of the pipe with an overlay showing where the trench will be dug for the pipeline. Please provide this as a high-resolution image so that a viewer can zoom in to see the impact on properties and vegetation along each portion of the pipeline route.

## Response:

- a) Enbridge Gas has determined that no permanent easement on private land is expected for the pipeline facility at this time. Please see response at Exhibit I.STAFF-11 part a) regarding the station location. The remainder of the preferred route (PR) is entirely within the public road allowance. Enbridge Gas has provided the route map in Appendix A of the Environmental Report (ER) at Exhibit F, Tab 1, Schedule 1, Attachment 1.
- b) Tree removal is not anticipated to be required for the Project. If tree removal is required, Enbridge Gas will obtain any required permits and authorizations prior to any tree removal and will follow all mitigation measures identified in the Project's Environmental Protection Plan (EPP).
- c) The level of detailed imaging requested by ED is not available at this time. The final detailed pipeline design (including proposed running line) is currently in development as Enbridge Gas continues to gather information from field studies and from consultation with stakeholders and permitting agencies. Impacts to properties and vegetation will vary, depending on the method of installation selected. Currently, the

pipeline(s) are proposed to be installed via a combination of horizontal directional drill and open cut excavations where applicable.

The Environmental Alignment Sheets provided at Appendix G of the ER generally show the environmental features in the Project Study Area. The ER and its alignment sheets inform the Project's detailed design, in an attempt to minimize potential impacts to these features.

Updated environmental alignment sheets will be included in the EPP, along with mitigation measures from the ER and any additional requirements identified during the permitting process, to minimize adverse effects to sensitive environmental features, where impacts are unavoidable.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-45 Plus Attachments Page 1 of 2

## ENBRIDGE GAS INC.

Answer to Interrogatory from Environmental Defence (ED)

## Interrogatory

Reference:

Exhibit I, Tab 1, Schedule 1

## Question(s):

a) Would Enbridge agree to the following condition of approval? If not, please explain why not and provide alternative wording for a commitment that Enbridge would make.

"The Applicant shall provide potential customers with a comparison of the average annual energy costs and lifetime all-in costs of converting to gas versus converting to a cold climate air source heat pump."

- b) Please provide a copy of:
  - All promotional or informational materials sent to customers in community expansion areas that have connected to the gas system in the past three years, including materials sent by mail, email, or social media;
  - ii) A copy of all newspaper and online advertisements relating to switching to gas in the past three years; and
  - iii) A copy of all Enbridge website pages relating to switching to gas.
- c) For the items in (b) that are undated, please indicate the date range during which they were sent to customers or published.
- Please provide a copy of all Enbridge communication plans or communication strategy documents relating to community expansions or switching to gas more generally.

## Response:

a) No. Enbridge Gas provides information (including conversion cost information) to consumers regarding conversion to natural gas. Enbridge Gas should not be required to provide information to consumers regarding conversion to non-natural gas energy solutions (e.g., electricity, oil, propane). Enbridge Gas does not have expertise in these non-natural gas energy solutions, and providing consumers with

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-45 Plus Attachments Page 2 of 2

cost information regarding conversions to high-efficiency electric cold climate air source heat pumps (which is the basis for ED's request) is not relevant to Enbridge Gas's natural gas leave to construct Application, as the Company has no ability to cause consumers to convert to those solutions via the Applications. In addition, providing consumers with information related to conversions to non-natural gas energy solutions without consideration of those energy solutions' supply-side requirements and implications would not be appropriate or valuable. Regarding natural gas solutions, the Company's natural gas community expansion applications contemplate all OEB-established natural gas supply-side requirements for leave to construct, including natural gas project costs, natural gas project economics, environmental impacts, land impacts, and Indigenous consultations.

Regarding energy comparison information in general (rather than specifically in relation to conditions of approval for leave to construct applications, which is the basis of ED's interrogatory), Enbridge Gas notes that the OEB has identified this topic for Phase 2 of the Company's 2024 rates application (EB-2022-0200).<sup>1</sup> The OEB directed Enbridge Gas to review the energy comparison information currently on its website and printed materials and to provide a report on the Company's review and actions taken. As such, Enbridge Gas submits that it would be inappropriate to make changes to leave to construct conditions of approval regarding this matter prior to the completion of Phase 2 of that proceeding.

## b-c)

Please see Attachment 1 to this response.

d) Please see Attachment 2 to this response.

<sup>&</sup>lt;sup>1</sup> EB-2022-0200, Decision and Order, December 21, 2023, p. 47.

Marketing Tactics - Community Expansion			
Marketing Tactics By Community	Launch In-Market Date	See Reference	Attachment #
Community Expansion Main Website		https://www.enbridgegas.com/residential/new-customers/community-expansion_	
Scugog			
Website Link		https://www.enbridgegas.com/residential/new-customers/community-expansion/scugog-island_	
Customer Attachment Packages	Feb 2021 Aug 2021 Sept 2021	Hidden Valley Community Expansion Project - Customer Attachment Packages - All Documents (sharepoint.com)	1
Rink Boards (2)	Jan 4 2021 - Jan 2 2022	Scugog Rink Advertising.pdf (sharepoint.com)	2
Transit Shelter Ads Community Expansion Construction Trailer Wraps	Jan-Mar 2021 Oct 2021 -	Hidden Valley Community Expansion Project - Scugog Transit Shelter Ad.pdf - All Documents (sharepoint.com) Hidden Valley Community Expansion Project - Community Trailers.pdf - All Documents (sharepoint.com)	3 4
Digital/Social Media Ads	Jan 11 - Dec 10 2021	Hidden Valley Community Expansion Project - Scugog Digital Ads.pdf - All Documents (sharepoint.com)	5
Virtual Open House Digital Ad	Mar-21	Hidden Valley Community Expansion Project - Scugog Virtual Open House Social Ad.pdf - All Documents (sharepoint.com)	6
System Expansion Explainer Video	Mar 2021- Oct 2021	https://youtu.be/HICJJUMVJmc	
Newspaper Advertising The Port Perry Standard The Port Perry Star	Jan 4 - Nov 1 2021	Hidden Valley Community Expansion Project - Scugog Newspaper Ads.pdf - All Documents (sharepoint.com)	7
North Bay			
Website Link		https://www.enbridgegas.com/residential/new-customers/community-expansion/north-bay-north-shore-peninsula-roads	
Customer Attachment Packages	Sep-21	Hidden Valley Community Expansion Project - North Bay Attachment Package.pdf - All Documents (sharepoint.com)	8
Digital/Social Media Ads Virtual Open House	Jan 11 - Dec 10 2021 Mar-21	Hidden Valley Community Expansion Project - North Bay Digital Ads.pdf - All Documents (sharepoint.com) Hidden Valley Community Expansion Project - North Bay Virtual Open House.pdf - All Documents (sharepoint.com)	9 10
Transit Shelter Ads Newspaper Advertising The Bay and Area	Jan / Feb 2021 May 2021 Oct 2021	Hidden Valley Community Expansion Project - North Bay Transit Ad.JPG - All Documents (sharepoint.com) Hidden Valley Community Expansion Project - North Bay Newspaper Ads.pdf - All Documents (sharepoint.com)	11
Fenelon Falls	Dec 2021		
	1		
Website Link Rink Boards (1)	.lan 4lan 2 2022	https://www.enbridgegas.com/residential/new-customers/community-expansion/fenelon-fails	13
Saugeen	Jan 4 = Jan 2, 2022		13
Website Link	1	https://www.enhridgegas.com/residential/new-rustomers/community-expansion/saugeen-first-nation	
Social Ad for band owned social media account	Nov-21	Hidden Valley Community Expansion Project - Saugeen Digital Ad.pdf - All Documents (sharepoint.com)	14
Direct Mail Fridge Magnet (for 2022)	Oct-21	Hidden Valley Community Expansion Project - Saugeen Fridge Magnet.pdf - All Documents (sharepoint.com)	15
Selwyn	1		
Website Link		https://www.enbridgegas.com/residential/new-customers/community-expansion/Selwyn	
Kiosk Assets	May-22	Selwyn May 2022 Kiosk & D2D Dropoff	16
Kiosk Assets Customer Attachment Package	Oct-22 Apr-22	Selwyh October 2022 Klosk & D2D Droptt Customer Attachment Parkage	17
Q4 Campaign Tactics	Oct-22	Selwyn Q4 2022 Campaign	19
Kiosk Assets	Feb-23	Selwyn February 2023 Kiosk & D2D Dropoff	20
МВQ			
Website Link		https://www.enbridgegas.com/residential/new-customers/community-expansion/mohawks-bay-quinte	
Open House Assets	Mav-22	MBQ May 2022 Open House	21
Kiosk and D2D Dropoff assets	Jan-23	MBQ January 2023 Kiosk & D2D Dropoff	22
Customer Attachment Package	Jan-23	Customer Attachment Package	23
Klosk and D2D Dropoff assets	Apr-23		24
Website Link		https://www.enbridgegas.com/residential/new-customers/community-expansion/hidden-valley	
Virtual Open House	Jun-22	Hidden Valley VOH 2022	25
Customer Attachment Package Kiosk Assets	Oct-22	Customer Attachment Package Hidden Valley October 2022 Kiosk & D2D Dronoff	26
Kiosk Assets	Feb-23	Hidden Valley February 2023 Kiosk & D2D Dropoff	28
Bobcaygeon			
Website Link		https://www.enbridgegas.com/residential/new-customers/community-expansion/bobcaygeonproject	
Information Session Ad	Nov-22	Information Session Ad - Kiawartha This Week	29
Customer Attachment Package	Nov-22 to Jan-23	Customer Attachment Package	30
Digital/Social Media Ads SES Video	Dec-22 to Jan-23 Dec-22 to Jan-23	https://www.youtube.com/watch?v=HwByXzEt4TI	31
SES Video	Dec-22 to Jan-23	https://www.youtube.com/watch?v=HICJJUMVJmc	
Testimonial Video	Dec-22 to Jan-23	https://youtu.be/0r7M9yVQNps	
Testimonial Video	Dec-22 to Jan-23	nttps://youtu.be/HnzQ0z6yb5Y https://youtu.be/iYvMwrhFI3s	+
Testimonial Video	Dec-22 to Jan-23	https://youtu.be/LFaRIUtna90	1
Kiosk Assets	Jan-23	<u>Kiosk Flyer</u>	32
Community Expansion Construction Trailer Wrap	Mar-23 to Pres.	Trailer Wrap	33
Sandford			
Website Link	May 2023 - present	Sandford Community Expansion Project   Enbridge Gas	
Social Media Ad for Virtual Information Session	May-23	see Attachment	34
Castomor Autonment Fackage		I	



## Scugog Attachment Package

February 2021

#### We're proud to energize Scugog Island!

Dear Scugog Island Resident,

#### Now's the time to apply for natural gas

We have some good news to share with you. Your address is identified as in scope for receiving natural gas shortly, and we want to make sure you're in the best position to connect as soon as possible. By signing up now, we'll be able to prioritize your service install as soon as the natural gas main is installed in front of your house. You may see us working on your street, including items such as survey stakes or locates and survey stakes in the boulevard.

If you're considering converting to natural gas, the earlier you apply the better as permits and locates can take time.

Refer to the Four-Step Process card when you're ready to apply, then visit savewithgas.com to start your application. You're required to agree to the Terms and Conditions and can do this electronically, or you can complete and return your signed Terms and Conditions form in the prepaid envelope provided.

#### Unlock the value of natural gas

When compared to using electricity, propane or oil, switching to natural gas could save you up to 39%\* per year on home and water heating costs. Natural gas is also the most affordable way to run appliances like ranges, clothes dryers and barbecues.

For us to extend natural gas to rural areas where the cost of building the infrastructure is more expensive than the revenue it generates, the Ontario Energy Board approved an additional System Expansion Surcharge or SES. This is a variable rate charge, of \$0.23/cubic meter of natural gas used, which will show as a separate line item on your monthly bill for up to 40 years. On average, this amounts to approximately \$550 a year. Even with the SES, you'll still save on home and water heating fuel costs by switching to natural gas. To estimate your potential fuel savings based on your circumstances or find valuable information to help make an informed decision for your household, visit www.savewithgas.com.

#### Get in touch with us

Our local Community Expansion Advisors are just a phone call away. You can reach out to them to talk about the steps to connect to natural gas, learn more about the value of natural gas, and estimate the potential savings for your home or business. They will provide you with sound information to help you determine if switching to natural gas is right for you.

- Don Armitage 705-750-7203 don.armitage@enbridge.com
- Travis James 289-971-0813 travis.james@enbridge.com

We look forward to meeting your energy needs.

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Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas Inc. savewithgas@enbridge.com savewithgas.com

\*Natural gas prices are based on Rate1 rates in effect as of **Jan 1, 2021** and includes the \$0.23 per m3 system expansion surcharge. Oil price is based on the latest available retail price. Electricity rates-based Hydro One Distribution rates (Mid-density R1) as of **Nov 1, 2020** and RPP customers that are on TOU pricing. It includes the new Ontario Electricity Rebate (OER) and excludes distribution charges per First Nations Delivery Credit. The propane price comparison is based on the lowest price obtained in an area survey. Since individual fuel prices may vary, savings assumptions may or the accurate in your situation. Please go to the calculator on savewithgas.com for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.



## **Investing in Indigenous** communities

Working together to create meaningful relationships and lasting prosperity

Enbridge adheres to a strong set of corporate values, and has adopted and implemented a number of corporate responsibility policies and practices. Our Indigenous Peoples Policy guides the nature and scope of our relationships with Indigenous peoples wherever we interact together.

- Serving 21 Indigenous communities across Ontario.
- \$33M in contracts to Indigenous suppliers, vendors and contractors.
- Support for Skills Canada Ontario First Nations, Métis and Inuit Initiatives since 2012.



## **Energizing the local** business community

Access to a more affordable, reliable and plentiful source of energy is a major competitive advantage for both large and small businesses. Connecting to natural gas will help expand critical infrastructure and drive economic development within the community.

Low-cost natural gas delivers approximately \$5 billion in annual savings to Ontario families, businesses and industry-savings that are reinvested into the economy.



## We're here for you

Customer Connections Call before you dig 1-877-362-7434

1-800-400-2255

Monday to Friday, 8 a.m. – 6 p.m.

24/7 Emergency line 1-866-763-5427

Community expansion contacts

Don Armitage 705-750-7203 don.armitage@enbridge.com

**Travis James** 289-971-0813 travis.james@enbridge.com





Natural gas price is based on Rate 1 rates in effect as of Jan. 1, 2021 and includes the \$0.23 per m3 system expansion surcharge. Oil and propane prices are based on the latest available retail prices. Electricity rates based Hydro One Distribution rates (Mid-density R1) as of Nov. 1, 2020 and RPP customers that are on TOU pricing. It includes the new Ontario Electricity Rebate (OER). Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.

"Subject to change. Please note that all charges, except the fixed Customer Charge, vary based on how much gas you use.

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GEN-CE-LEG-JAN21

Switch to safe, reliable, affordable natural gas

## **Energizing your** community

Why natural gas is a smart choice





We understand that these are extraordinary times – around the world and at home here in Ontario. Community Expansion work has been identified as an essential service by the Ontario Government. Enbridge Gas is committed to bringing natural gas to your community and we are following the latest guidance provided by public health officials and government authorities. The safety of our customers, employees and contractors is our top priority. Visit **savewithgas.com** for Community Expansion project updates.

## The benefits of natural gas

## (Park)

## More affordable

Compared to other fuels and electricity, natural gas is the most cost-effective way to heat your home and water.



#### **Reliable and abundant**

Never worry about running out of fuel or arranging for deliveries again.



### **Comfort and convenience**

From heating your home and hot water, to cooking, natural gas can make your home more comfortable and enjoyable.

## Residential annual heating bills

Annual cost comparison: space and water heating



# How to start saving with natural gas

Visit **savewithgas.com** to learn about the benefits of natural gas and the many ways it can help fuel your lifestyle. Follow these four easy steps to get connected. It's always better to submit your application for a natural gas service early in the process since it can take several months to obtain the necessary locates and permits before installing the service itself.

## Visit savewithgas.com

Go online to **savewithgas.com** to express your interest in natural gas by clicking the "Sign up" button to agree to the Terms and Conditions.

## **2** <sup>T</sup> A

## Talk to your local heating contractor

Advise your heating contractor that you've agreed to the Terms and Conditions.

Your contractor will submit the natural gas service application on your behalf.

Once both are complete, our office will be in touch with you to confirm timing.

Our construction department will contact you to schedule a meeting to locate and mark all existing underground services.



4

#### After we install the gas meter

Contact your contractor to arrange for the installation/conversion of your natural gas equipment.

## The final step

Contact 1-877-363-7434 at least 48 hours in advance to arrange your meter activation and final inspection of the natural gas equipment.

# Where does your money go?

Here's a helpful explanation of the items on a natural gas bill

#### System Expansion — Surcharge

Surcharge It takes significant investment to build the infrastructure to bring natural gas to your community. This surcharge is your contribution, and the fairest way to spread the costs out.

#### **Customer Charge**

This is a fixed \$21.48" amount that pays for meter reading, equipment maintenance and 24/7 emergency response services and community expansion.

#### Supply, Delivery and Transportation Charges These cover the

costs to buy natural

Ontario and move

safely and reliably.

it to your home.

gas, bring it to

#### Cost Adjustment

You pay what we pay. As the price for natural gas changes, we'll adjust your bill quarterly as a charge or credit.

## FAQ

1. As a new community expansion customer, why do I have to pay an additional charge towards the construction costs of the project?

## 2. Why does the length of time the surcharge is in effect differ by community?

To enable us to extend natural gas to rural areas where the cost of building the infrastructure is more expensive than the revenue it generates, the province's energy regulator—the Ontario Energy Board—has approved an additional new customer charge of 23 cents for each cubic metre of natural gas used for a limited time period. On average, most homes will pay \$550 a year for up to 40 years. The length of time this charge remains in effect varies by community because the overall cost to serve each community differs based on things like the distance of the community from an existing natural gas pipeline. Even with this added charge, you'll still save on home and water heating fuel costs by switching to natural gas.

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## () IMPORTANT

Do not disconnect your existing fuel source or remove any equipment until your new natural gas service and gas meter have been installed.

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# Easy tips for energy savings

Here are some simple ways to save energy, keep your costs down and still stay comfortable.

## Spring/summer checklist

Set your thermostat at a temperature you find comfortable. Raise the temperature a few degrees	k C ir
higher when you're asleep or away.	li C
Keep window coverings closed during the hottest hours. Open windows at night.	F S C
Regularly change or clean the filters on your air conditioner.	li C
<b>Regularly change or clean</b> <b>your cooling unit's filters</b> to keep it working efficiently.	<b>/</b> C
<b>Use your range hood when</b> <b>cooking</b> to help remove heat from your home.	

Keep your home cooler by **cooking on your outdoor grill** instead of your stove or oven.

If possible, **air-dry clothes** outdoors to save energy.

**Remove dust and debris from sliding door tracks** to keep cool air from escaping.

If you have a pool, **use a solar cover** to retain heat.

Air-dry dishes once the dishwasher's wash cycle is complete.

## Tips to save year-round

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Always wait for a full load before running your dishwasher or washing machine.

A five-minute shower uses less than half the hot water of a bath.



Wash and rinse clothes with cold water to use less energy.



Fix dripping faucets – one drop/second for a month equals 16 hot baths!

Don't peek in the oven while baking – 20 percent of heat will escape!



Caulk around doors and windows to avoid air leaks.



# Natural gas is now available in your community

## Terms and Conditions for natural gas service—to be completed by the property owner

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Service and meter installation in excess of these distances will result in additional charges of \$32 per metre (plus applicable taxes)\*. Call your local heating, ventilation and air conditioning (HVAC) provider for an assessment and to submit an application for gas service.

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On average, most homes will pay a Surcharge of about \$550 per year (\$0.23 per cubic metre). The Surcharge is based on the home's consumption and will fluctuate based on the gas consumed.

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Name (please print)	Phone number	Email address
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Life Takes Energy®



## Scugog Attachment Package

August 2021

#### We're proud to energize Scugog Island!

Dear Scugog Island Resident,

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We have some good news to share with you. Your address is identified as in scope for receiving natural gas shortly, and we want to make sure you're in the best position to connect as soon as possible. By signing up now, we'll be able to prioritize your service install as soon as the natural gas main is installed in front of your house. You may see us working on your street, including items such as survey stakes or locates and survey stakes in the boulevard.

If you're considering converting to natural gas, the earlier you apply the better as permits and locates can take time.

Refer to the Four-Step Process card when you're ready to apply, then visit enbridgegas.com/savewithgas to start your application. You're required to agree to the Terms and Conditions and can do this electronically at the website above under your community, or you can complete and return your signed Terms and Conditions form by emailing this to us at <u>ceapplications@enbridge.com</u> and once we receive this, we'll be in touch.

#### Unlock the value of natural gas

When compared to using electricity, propane, or oil, switching to natural gas could save you up to 52%\* per year on home and water heating costs. Natural gas is also the most affordable way to run appliances like ranges, clothes dryers, and barbecues.

For us to extend natural gas to rural areas where the cost of building the infrastructure is more expensive than the revenue it generates, the Ontario Energy Board approved an additional Expansion Surcharge or ES. This is a variable rate charge, of \$0.23/cubic meter of natural gas used, which will show as a separate line item on your monthly bill for up to 40 years. On average, this amounts to approximately \$550 a year. Even with the ES, you'll still save on home and water heating fuel costs by switching to natural gas. To estimate your potential fuel savings based on your circumstances or find valuable information to help make an informed decision for your household, visit enbridgegas.com/savewithgas to learn more.

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We look forward to meeting your energy needs.

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Working together to create meaningful relationships and lasting prosperity

Enbridge adheres to a strong set of corporate values, and has adopted and implemented a number of corporate responsibility policies and practices. Our Indigenous Peoples Policy guides the nature and scope of our relationships with Indigenous peoples wherever we interact together.

- · Serving 21 Indigenous communities across Ontario.
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## 52%

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September 2021

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# **Scugog Island Residents**

## We are here for you!

**Wednesday, Sept. 22** 3:30 – 6:30 p.m. **Thursday, Sept. 23** 10 a.m. – 1 p.m.

Rain date: Sept. 28 3:00 - 6:30 p.m.

# Learn about the benefits of switching to natural gas and how to get connected.

## Stop by our kiosk at:

Redmans Antique Barn, 15751 Island Rd, Scugog Island (corner of Island Rd and Hwy 7)

Representatives will be available to answer all your questions:

Drop by to have all **your questions answered** and we'll help you apply for your natural gas service.

**Talk about potential savings** on your home energy bills.

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- 1. The distance between the Owner's property line and the front wall of house/building is 20 metres or less; and
- 2. The distance between the front wall of house/building and the selected meter location is 2 metres or less.

Service and meter installation in excess of these distances will result in additional charges of \$32 per metre (plus applicable taxes)\*. Call your local heating, ventilation and air conditioning (HVAC) provider for an assessment and to submit an application for gas service.

Enbridge Gas will assess where your HVAC provider has requested the meter and determine where the service can be installed.

#### Expansion Surcharge—what to expect

It takes significant investment to build the infrastructure to bring natural gas to your community. The Expansion Surcharge (Surcharge) provides lower upfront costs to customers by spreading them out over time\*\*.

On average, most homes will pay a Surcharge of about \$550 per year (\$0.23 per cubic metre). The Surcharge is based on the home's consumption and will fluctuate based on the gas consumed.

#### The cancellation policy

If your natural gas account is not activated within one year of installation of your new natural gas service, you'll be required to pay Enbridge Gas' installation costs of \$2,500.

Name (please print)	Phone number	Email address
Address (please print)	Signature	Date
Questions? We're here for you		

#### Contact our Customer Care team at 1-888-427-8888

customerconnectionscontactcentre@enbridge.com

Please complete this form and email it to ceapplications@enbridge.com

\*First Nation communities are exempt from HST.

\*\*The Expansion Surcharge will transfer to subsequent owners of your property.



Life Takes Energy®





# **Rink Advertising**

# Scugog

# Jan 4, 2021 – Jan 2, 2022

# Natural gas is a game-changer savewithgas.com





# Scugog Transit Shelter Ad

2021

# **Scugog Islanders**

# Choose comfort, convenience and peace of mind

Save on heating, spend on what you love

# Join us in leading Ontario's low-carbon energy future. **Savewithgas.com**



Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 29 of 237 Attachment 4



# **Community Expansion Trailers**

2022

#### Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 30 of 237









1:10th Scale

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 31 of 237 Attachment 5



# Scugog Community Expansion Digital Tactics 2021



Headline (max 25 characters): Leading Ontario's energy transition

CTA:

Learn more

Post Copy (125 characters):

Natural gas is an essential fuel choice you can rely on for space heating, cooking and endless hot water.



Headline (max 25 characters): Reducing environmental impact

CTA: Learn more



Headline (max 25 characters): Meeting your energy needs

CTA: Learn more



Post copy [125 characters] Natural gas is flowing in your area. We're leading the transition to a clean energy future with innovative solutions.

Headline (25 characters) Energy you can rely on

Link description (30 characters) So many reasons to switch

CTA Learn more

### Savings Themed during Holidays



# See how much you can **save each year**







# Save on heating, spend on **what you love**

#### Static Ads



Option 1

Headline (max 40 characters): Affordable, reliable natural gas (32)

Text (max 125 characters): Join the shift to cleaner energy. Still heating with oil or propane? Switch to natural gas to save on costs and emissions. (122)

Link description (max 30 characters): Natural gas is now available! (29)

CTA (from the supplied options): Learn more



Option 1 Headline (max 40 characters): Why switch to natural gas? (27)

Text (max 125 characters): 1. Saving money every month. 2. No more running out of fuel or waiting for deliveries. 3. Lowering your home's emissions. (122)

Link description (max 30 characters): See how much you can save (25)

CTA (from the supplied options): Learn more

### Carousel Ads



Headline (max 40 characters): More choice, more solutions (27)

Text (max 125 character

Why are Scugog Islanders switching from oil and propane heating to natural gas? For lower costs and lower carbon emissions. (123)

Link description (max 20 characters): A new heating option (20)

CTA (from the supplied options): Learn more



Headline (max 40 characters): Ready now: Cleaner energy (25) Link description (max 20 characters): Reduce emissions (16)

Affordable reliable heating



(30) Link description (max 20 characters): Reduce costs (12)



Headline (max 40 characters): Towards a cleaner future (24) Link description (max 20 characters): More reliable (13)



Headline (max 40 characters): Let us help you switch (23) Link description (max 20 characters): Get in touch today (18)





Headline (max 40 characters): See how much you can save (25) Link description (max 20 characters):

More affordable (15)

Headline (max 40 characters): More value for your energy dollar (34)

Link description (max 20 characters): More convenient (14)

The

benefits

add up

A new heating option

Headline [max 40 characters]: Cleaner energy you can feel good about (38)

Link description (max 20 characters): More comfort (12)



Headline (max 40 characters): Affordable. Reliable. Plentiful. [32]

Link description (max 20 characters): Lower emissions (15)

Headline (max 40 characters): Switch to natural gas (21) Text (max 125 characters):

When you switch to natural gas, you'll save on energy costs, avoid running out of fuel and lower carbon emissions. (115)

Link description (max 20 characters): Lower heating bills (19)

CTA (from the supplied options): Learn more Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 42 of 237 Attachment 6



# Scugog Community Expansion Virtual Open House Digital Ad





# **Scugog Print Materials**

#### The Standard (Port Perry/Scugog)

In-market: Jan 4

In-market: Feb 8

In market: March 15

In-market: May 13th

In-market: July 15th

In-market: August 12th

In-market: September 9th

In-market: November 18th

#### Port Perry Star (Port Perry/Scugog)

In-market: Jan 4 In-market: Feb 15 In market: March 15 In-market: May 27 In-market: June 24 In-market July 22 In-market: October 14 In-market: November 11



### Scugog Islanders Choose comfort and convenience

Whether it's for heating, cooking or endless hot water, natural gas delivers cost savings and reliability to your daily life.

#### Natural gas is now flowing!

Get in touch with us Don Armitage: 705-750-7203

Travis James: 289-971-0813

Visit **savewithgas.com** to calculate your savings.







Your neighbours are switching to natural gas for more affordable, reliable and cleaner home energy.

Visit **enbridgegas.com/savewithgas** to sign up and calculate your savings.



Find out how we can help you switch.

Connect with us today. Don Armitage: 705-750-7203 Randy Whitten: 437-228-7296

Email us at CEAPPLICATIONS@enbridge.com





### Scugog Islanders Save on energy, spend on those you love

#### Natural gas is now available!

Home comfort doesn't have to be costly switch to reliable, affordable natural gas so you can save all year, every year.

We're here for you Don Armitage: 705-750-7203

Kathy Whitten: 647-281-0337

Visit **enbridgegas.com/savewithgas** to calculate your savings.

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ENBRIDGE Life Takes Energy Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 47 of 237





Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 49 of 237 Attachment 8



# North Bay Attachment Package

September 2021

#### We're proud to energize Northshore and Peninsula Road area in North Bay!

Dear Resident,

We have some good news to share with you. Your address has been identified as in scope for our natural gas expansion project. To find out when natural gas will be available for connection, please reach out to our Community Expansion Advisors who can provide you with construction and project updates and discuss timelines as to when natural gas will be available for your home.

#### The deadline for applications and your service in 2021 is coming soon

Refer to the Four-Step Process card when you're ready to apply, then visit enbridgegas.com/savewithgas to start your application. You are required to agree to the Terms and Conditions – either electronically during sign up at enbridgegas.com/savewithgas, or you can complete and email this to our Community Expansion Advisors at <u>ceapplications@enbridge.com</u> when the form is complete. If submitting via email, you will need to call 1-888-774-3111 to create your account.

#### Unlock the value of natural gas

When compared to using electricity, propane, or oil, switching to natural gas could save you up to 47%\* per year on home and water heating costs. Natural gas is also the most affordable way to run appliances like ranges, clothes dryers, and barbecues.

For us to extend natural gas to rural areas where the cost of building the infrastructure is more expensive than the revenue it generates, the Ontario Energy Board approved an additional Expansion Surcharge or ES. This is a variable rate charge, of \$0.23/cubic meter of natural gas used, which will show as a separate line item on your monthly bill for up to 40 years. On average, this amounts to approximately \$550 a year. Even with the ES, you'll still save on home and water heating fuel costs by switching to natural gas. To estimate your potential fuel savings based on your circumstances visit enbridgegas.com/savewithgas to find valuable information to help make an informed decision for your household.

#### Get in touch with us

Our local Community Expansion Advisors are just a phone call away. You can reach out to them to talk about the steps to connect to natural gas, learn more about the value of natural gas, and estimate the potential savings for your home or business. They will provide you with sound information to help you determine if switching to natural gas is right for you.

- Jamie Coote 705-845-1100 Jamie.Coote@enbridge.com
- Travis James 289-971-0813 travis.james@enbridge.com

We look forward to meeting your energy needs.

ahmed al-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas Inc. savewithgas@enbridge.com savewithgas.com

\*Natural gas prices are based on Rate 01 NE rates in effect as of **July 1, 2021** and includes the \$0.23 per m3 expansion surcharge. Oil price is based on the latest available retail price. Electricity rates-based Hydro One Distribution rates (Mid-density R1) as of **January 1, 2021** and RPP customers that are on TOU pricing. It includes the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey. Since individual fuel prices may vary, savings assumptions may or may not be accurate in your situation. Please go to the calculator on enbridgegas.com/savewithgas for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery, and energy charges. Carbon price is included for all energy types as reported. HST is not included.



# Investing in Indigenous communities

Working together to create meaningful relationships and lasting prosperity

Enbridge adheres to a strong set of corporate values, and has adopted and implemented a number of corporate responsibility policies and practices. Our Indigenous Peoples Policy guides the nature and scope of our relationships with Indigenous peoples wherever we interact together.

- Serving 21 Indigenous communities across Ontario.
- \$33M in contracts to Indigenous suppliers, vendors and contractors.
- Support for Skills Canada Ontario First Nations, Métis and Inuit Initiatives since 2012.



# Energizing the local business community

Access to a more affordable, reliable and plentiful source of energy is a major competitive advantage for both large and small businesses. Connecting to natural gas will help expand critical infrastructure and drive economic development within the community.

Low-cost natural gas delivers approximately \$5 billion in annual savings to Ontario families, businesses and industry–savings that are reinvested into the economy.



#### 🛞 We're here for you

Customer care **1-888-774-3111** 

Call before you dig **1-800-400-2255** 

Monday to Friday, 8 a.m. – 6 p.m. 24/7 Emergency line 1-877-969-0999

Community expansion contacts

Jamie Coote 705-845-1100 jamie.coote@enbridge.com

Travis James 289-971-0813 travis.james@enbridge.com

Visit **enbridgegas.com/savewithgas** to learn more about natural gas in your community.





 Subject to change. Please note that all charges, except the fixed Customer Charge, vary based on how much gas you use.
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GEN-CE-LUG JULY2021

Switch to safe, reliable, affordable natural gas

# Energizing your community

Why natural gas is a smart choice





We understand that these are extraordinary times around the world and at home here in Ontario. Community Expansion work has been identified as an essential service by the Ontario Government. Enbridge Gas is committed to bringing natural gas to your community and we are following the latest guidance provided by public health officials and government authorities. The safety of our customers, employees and contractors is our top priority. Visit savewithgas.com for Community Expansion project updates.



### The benefits of natural gas



#### More affordable

Compared to other fuels and electricity, natural gas is the most cost-effective way to heat your home and water.



#### **Reliable and abundant**

Never worry about running out of fuel or arranging for deliveries again.



#### **Comfort and convenience**

From heating your home and hot water, to cooking, natural gas can make your home more comfortable and enjoyable.



#### Natural gas furnace

Quickly heats the entire house, circulates filtered air and keeps temperatures consistent



#### Natural gas fireplace

Cosy up with a good book and forget about cleaning ashes and heat loss up the chimney.

#### Natural gas barbecue

Makes grilling easy and guick. It is also much more convenient. You won't ever have to run out of fuel.

### How to start saving with natural gas

Follow these four easy steps to get connected. It's always better to submit application for a natural gas service as early in the process as you can to help us plan your service and make sure you are included.



#### Visit enbridgegas.com/savewithgas

Go online to enbridgegas.com/savewithgas to express your interest in natural gas by clicking the "Sign up" button to agree to the terms and conditions and set up your account.

Choose from several convenient billing and payment options - if you opt for our equal billing and automatic payment plans, we'll waive the security deposit requirements.



3

#### Talk to your local heating contractor

Advise your heating contractor that you've agreed to the Terms and Conditions and you've set up vour account.

Your contractor will submit the natural gas service application on your behalf.

Once both are complete, our office will be in touch with you to confirm timing.

Our construction department will contact you to schedule a meeting to locate and mark all existing underground services.

#### After we install the natural gas service

Contact your contractor to arrange for the installation/conversion of your natural gas equipment.

#### The final step



Your heating contractor will install your new equipment and arrange for your meter to be installed and activated. Your new equipment will be turned on and inspected as required by the Technical Standards and Safety Act.

### Where does your money go?

Here's a helpful explanation of the items on a natural gas bill

#### **Expansion Surcharge**

It takes significant investment to build the infrastructure to bring natural gas to your community. This surcharge is your contribution, and the fairest way to spread the costs out.

**Cost Adjustment** 

as a charge or credit.

You pay what we pay. As the

price for natural gas changes,

we'll adjust vour bill quarterly

#### **Customer Charge**

This is a fixed \$22.50° amount that pays for meter reading, equipment maintenance and 24/7 emergency response services and community expansion.

#### Supply, **Delivery and** Transportation Charges These cover the

costs to buy natural gas, bring it to Ontario and move it to your home. safely and reliably.

FAQ 1. As a new community expansion customer, why do I have to pay an additional charge

2. Why does the length of time the surcharge is in effect differ by community?

towards the construction costs of the project?

To enable us to extend natural gas to rural areas where the cost of building the infrastructure is more expensive than the revenue it generates, the province's energy regulator-the Ontario Energy Board-has approved an additional new customer charge of 23 cents for each cubic metre of natural gas used for a limited time period. On average, most homes will pay \$550 a year for up to 40 years. The length of time this charge remains in effect varies by community because the overall cost to serve each community differs based on things like the distance of the community from an existing natural gas pipeline. Please note there may be a delay beyond our control in requesting permits and locates.

# How to start saving with natural gas

Safe. Reliable. Affordable. Abundant.



#### Sign up online

Go online to enbridgegas.com/savewithgas to express your interest in natural gas by clicking the "Sign up" button to agree to the terms and conditions and set up your account.

Choose from several convenient billing and payment options - if you opt for our equal billing and automatic payment plans, we'll waive the security deposit requirements.



#### Talk to your local heating contractor

Advise your heating contractor that you've agreed to the Terms and Conditions and you've set up your account.

Your contractor will submit the natural gas service application on your behalf.

Once both are complete, our office will be in touch with you to confirm timing.

Our construction department will contact you to schedule a meeting to locate and mark all existing underground services.



After we install the natural gas service

Contact your contractor to arrange for the installation/conversion of your natural gas equipment.



#### The final step

Your heating contractor will install your new equipment and arrange for your meter to be installed and activated. Your new equipment will be turned on and inspected as required by the Technical Standards and Safety Act.

If you have any questions, please reach out to one of our Community Expansion advisors listed below.

#### Enbridge Gas contacts

Jamie Coote 705-845-1100 jamie.coote@enbridge.com

**Travis James** 289-971-0813 travis.james@enbridge.com





For more information visit enbridgegas.com/savewithgas to learn about the benefits of natural gas and the many ways it can help fuel your lifestyle.



#### () IMPORTANT

Do not disconnect your existing fuel source or remove any equipment until your new natural gas service and gas meter have been installed.

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# Natural gas is now available in your community

#### Terms and Conditions for natural gas service—to be completed by the property owner

#### Natural gas service installation policy

Enbridge Gas will provide and install at no cost, one service line per civic address to new customers which will include up to 30 metres of laid pipe and anything beyond that would be \$45 per metre (plus applicable taxes).

Call your local heating, ventilation and air conditioning (HVAC) provider for an assessment and to submit an application for gas service.

Enbridge Gas will assess where your HVAC provider has requested the meter and determine where the service can be installed.

#### Expansion Surcharge—what to expect

It takes significant investment to build the infrastructure to bring natural gas to your community. The Expansion Surcharge (Surcharge) provides lower upfront costs to customers by spreading them out over time\*.

On average, most homes will pay a Surcharge of about \$550 per year (\$0.23 per cubic metre). The Surcharge is based on the home's consumption and will fluctuate based on the gas consumed.

#### The cancellation policy

If your natural gas account is not activated within one year of installation of your new natural gas service, you'll be required to pay Enbridge Gas' installation costs of \$2,500.

Name	please	print)
------	--------	--------

Phone number

Email address

Address (please print)

Signature

Date

#### Questions? We're here for you

Contact our Customer Care team at 1-888-774-3111 ceapplications@enbridge.com

Please complete this form and email it to ceapplications@enbridge.com

\* The Expansion Surcharge will transfer to subsequent owners of your property.

† Natural gas price includes the Expansion Surcharge.





## North Bay Digital Ads

Carousel Ads





Headline (max 40 characters); Switch to natural gas (21) Link Description Text (max 70 characters); Lower heating bills (19)

Post Copy (max 125 characters): When you switch to natural gas, you'll save all year, every year, avoid running out of fuel and reduce carbon emissions. [120]

CIA: Learn More Headline (max 40 characters): Save money and energy (21) Link Description Text (max 20 characters): More affordable (15)



Headline (max 40 characters): More value for your energy dollar (34) Link Description Text (max 20 characters): More convenient (14)



Headline (max 40 characters): A switch you can feel good about (34) Link Description Text (max 70 characters): More comfort (12)



Headline (max 40 characters): Affordable. Reliable. Plentiful. (32) Link Description Text (max 70 characters): Lower emissions (15)

Static Ad
Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 58 of 237



Headline (max 40 characters): Switch. Save. Simple. (22)

Post copy (125 characters): North Bay: Switch from heating with oil or propane to natural gas for annual savings, more comfort and lower emissions. (119)

Link description (max 30 characters): The benefits add up (19)

CTA: Learn More



#### North Bay Virtual Open House Ad March 2021





Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 62 of 237 Attachment 12



#### North Bay Newspaper Ad

Northshore and Peninsula Road Area

### Save on energy, spend on those you love



Home comfort doesn't have to be costly—switch to reliable, affordable natural gas so you can save all year, every year.

We're here for you Jamie.Coote@enbridge.com 705-845-1100

Travis.James@enbridge.com 289-971-0813

Email us at CEAPPLICATIONS@enbridge.com

#### Sign up today!

Visit enbridgegas.com/savewithgas to sign up and calculate your savings.



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Northshore and Peninsula Road Area

### Towards a clean energy future

Switch to natural gas for more affordable, reliable home heating—plus do your part to reduce your home's greenhouse gas emissions.

Sign up now and enjoy your natural gas service this year.

Connect with us today. Jamie Coote: 705-845-1100 Jamie Coote@enbridge.com

Travis James: 289-971-0813 Travis.James@enbridge.com

Visit **enbridgegas.com/savewithgas** to sign up and calculate your savings.



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#### **Rink Advertising**

#### **Fenelon Falls**

#### Jan 4, 2021 – Jan 2, 2022

# Natural gas is a game-changer savewithgas.com



Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 68 of 237 Attachment 14



#### Saugeen Kiosk Digital Ad

## Saugeen First Nation Residents

## We are here for you!

**Stop by our kiosk at:** Saugeen First Nation Governance Building 6 Cameron Drive, Southampton

**Wednesday, Nov. 17** 1:30 – 5:30 p.m. **Thursday, Nov. 18** 10 a.m. – 2 p.m.

Rain date: Tuesday, Nov. 23 10 a.m. – 2 p.m.



#### Saugeen Fridge Magnet Calendar Mailer



## **OCTOBER 2021**

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 72 of 237



## Learn about the benefits of switching to natural gas and how to get connected.

**Stop by our kiosk at:** Classy Chassis & Cycles 1399 8th Line Smith, Lakefield

Representatives will be available to answer all your questions:

Drop by to have all **your questions answered** and we'll help you apply for your natural gas service.

**Talk about potential savings** on your home energy bills.

Connect with us at: ceapplications@enbridge.com





#### We're proud to energize the Township of Selwyn!

Dear Selwyn Resident,

#### Now's the time to apply for natural gas

We have some good news to share with you. Your address is identified as in scope for receiving natural gas shortly, and we want to make sure you're in the best position to connect as soon as possible. By signing up now, we'll be able to prioritize your service install as soon as the natural gas main is installed in front of your house. You may see us working on your street, including items such as survey stakes or locates.

If you're considering converting to natural gas, the earlier you apply the better as permits and locates can take time.

Refer to the Four-Step Process card when you're ready to apply, then visit **enbridgegas.com/savewithgas** to start your application. You're required to agree to the Terms and Conditions – either electronically during sign up at **enbridgegas.com/savewithgas**, or you can complete and email this to our Community Expansion Advisors at **ceapplications@enbridge.com** when the form is complete.

#### Unlock the value of natural gas

When compared to using electricity, propane or oil, natural gas could save you up to 54%\* per year on home and water heating costs. Natural gas is also the most affordable way to run appliances like ranges, clothes dryers and barbecues.

For us to extend natural gas to rural areas where the cost of building the infrastructure is more expensive than the revenue it generates, the Ontario Energy Board approved an additional Expansion Surcharge or ES. This is a variable rate charge, of \$0.23/cubic meter of natural gas used, which will show as a separate line item on your monthly bill for up to 40 years. On average, this amounts to approximately \$550 a year. Even with the ES, you'll still save on home and water heating fuel costs by switching to natural gas. To estimate your potential fuel savings based on your circumstances or find valuable information to help make an informed decision for your household, **enbridgegas.com/savewithgas** to find out more.

#### Get in touch with us

Our local Community Expansion Advisors are just a phone call away. You can reach out to them to talk about the steps to connect to natural gas, learn more about the value of natural gas, and estimate the potential savings for your home or business. They will provide you with sound information to help you determine if switching to natural gas is right for you.

Community Expansion Advisor ceapplications@enbridge.com 1-833-356-2689

We look forward to meeting your energy needs.

ahmed al-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas Inc. ceapplications@enbridge.com enbridgegas.com/savewithgas

\* Natural gas prices are based on Rate 1 rates in effect as of **April 1, 2022** and includes the \$0.23 per m<sup>3</sup> expansion surcharge. Oil price is based on the latest available retail price. Electricity rates based Hydro One Distribution rates (Mid-density R1) as of **April 1, 2022** and RPP customers that are on TOU pricing. It includes the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Since individual fuel prices vary, savings assumptions may or may not be as accurate in your situation. Please go to our calculator at enbridgegas.com/savewithgas for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.



Search enbridgegas to connect with us  $(f)(\bigcirc)(in)(\mathbf{y})$ 

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 74 of 237



## Learn about the benefits of switching to natural gas and how to get connected.

**Stop by our kiosk at:** Classy Chassis & Cycles 1399 8th Line Smith, Lakefield

Representatives will be available to answer all your questions:

Drop by to have all **your questions answered** and we'll help you apply for your natural gas service.

**Talk about potential savings** on your home energy bills.

Connect with us at: ceapplications@enbridge.com



## How to start saving with natural gas

Safe. Reliable. Affordable. Abundant.



#### Visit enbridgegas.com/savewithgas

Go online to **enbridgegas.com/savewithgas** to express your interest in natural gas by clicking the "Sign up" button to agree to the Terms and Conditions.



#### Talk to your local heating contractor

Advise your heating contractor that you've agreed to the Terms and Conditions and you've set up your account.

Your contractor will submit the natural gas service application on your behalf.

Once both are complete, our office will be in touch with you to confirm timing.

Our construction department will contact you to schedule a meeting to locate and mark all existing underground services.



#### After we install the natural gas service

Contact your contractor to arrange for the installation/conversion of your natural gas equipment.



#### The final step

Contact 1-877-362-7434 at least 48 hours in advance to arrange your meter activation and final inspection of the natural gas equipment.

If you have any questions, please reach out to one of the following options below::

Email: ceapplications@enbridge.com Phone: 1-833-356-2689





For more information visit enbridgegas.com/savewithgas to learn about the benefits of natural gas and the many ways it can help fuel your lifestyle.



#### () IMPORTANT

Do not disconnect your existing fuel source or remove any equipment until your new natural gas service and gas meter have been installed.

© Enbridge Gas Inc.

## Residential annual heating bills

Annual cost comparison: space and water heating<sup>\*</sup>



\* Natural gas prices are based on Rate 1 rates in effect as of **April 1, 2022** and includes the \$0.23 per m<sup>3</sup> expansion surcharge. Oil price is based on the latest available retail price. Electricity rates based Hydro One Distribution rates (Mid-density R1) as of **April 1, 2022** and RPP customers that are on TOU pricing. It includes the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Since individual fuel prices vary, savings assumptions may or may not be as accurate in your situation. Please go to our calculator at **enbridgegas.com/savewithgas** for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.



## Natural gas is now available in your community

#### Terms and Conditions for natural gas service—to be completed by the property owner

#### Natural gas service installation policy

Enbridge Gas will provide and install at no cost, one service line per civic address to new customers provided that:

- 1. The distance between the Owner's property line and the front wall of house/building is 20 metres or less; and
- 2. The distance between the front wall of house/building and the selected meter location is 2 metres or less.

Service and meter installation in excess of these distances will result in additional charges of \$32 per metre (plus applicable taxes)\*. Call your local heating, ventilation and air conditioning (HVAC) provider for an assessment and to submit an application for gas service.

Enbridge Gas will assess where your HVAC provider has requested the meter and determine where the service can be installed.

#### Expansion Surcharge—what to expect

It takes significant investment to build the infrastructure to bring natural gas to your community. The System Expansion Surcharge (Surcharge) provides lower upfront costs to customers by spreading them out over time\*\*.

On average, most homes will pay a Surcharge of about \$550 per year (\$0.23 per cubic metre). The Surcharge is based on the home's consumption and will fluctuate based on the gas consumed.

#### The cancellation policy

If your natural gas account is not activated within one year of installation of your new natural gas service, you'll be required to pay Enbridge Gas' installation costs of \$2,500.

Name (please print)	Phone number	Email address	
Address (please print)	Signature	Date	

#### Questions? We're here for you

Contact our Community Expansion Team at 1-833-356-2689 or email **ceapplications@enbridge.com** 

Please complete this form and email it to ceapplications@enbridge.com

\*First Nation communities are exempt from HST.

\*\*The Expansion Surcharge will transfer to subsequent owners of your property.



#### Selwyn Community Expansion Project

#### Location

Classy Chassis & Cycles 1399 8th Line Smith, Lakefield

**Date** Wednesday, May 4, 10 a.m. – 6 p.m.

#### **Rain Date**

Thursday, May 5, 10 a.m. – 6 p.m.



### Selwyn Community Expansion Project

#### Location

Classy Chassis & Cycles 1399 8th Line Smith, Lakefield

**Date** Wednesday, May 4, 10 a.m. – 6 p.m.

Rain Date Thursday, May 5, 10 a.m. – 6 p.m.



#### Selwyn Community Expansion Project

#### Location

Classy Chassis & Cycles 1399 8th Line Smith, Lakefield

#### Date

Tuesday, Oct. 4, 10 a.m. – 6 p.m.

#### Rain Date Thursday, Oct. 6, 10 a.m. – 6 p.m.



### Selwyn Community Expansion Project

#### Location

Classy Chassis & Cycles 1399 8th Line Smith, Lakefield

**Date** Tuesday, Oct. 4, 10 a.m. – 6 p.m.

Rain Date Thursday, Oct. 6, 10 a.m. – 6 p.m.



**Attachment 18** 

## Choose to pay less for energy

Save up to 65% each year by switching to natural gas

#### What's inside:



See how much you can save 5-step guide to get connected



## Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know about connecting your home or business and all the benefits of affordable, reliable natural gas.

#### Save up to 65 percent\* each year

Compared to electricity, propane or oil, switching to natural gas could save you on home and water heating costs year round. It's more convenient: you'll never run out of fuel or wait for trucks to arrive.

#### Lower carbon emissions

Natural gas is cleaner than other fuels and can help reduce your home's carbon footprint.

#### It's easy to get started

Follow our simple five-step guide on page six to see how the connection process works.

#### See how much you can save

Use our online calculator to see how much you can save by switching to natural gas. Enter your home's size, age and a few more details to get a personalized estimate of annual savings.

Calculate your savings by visiting enbridgegas.com/savewithgas and finding your community page to use the calculator.

ahmed ab-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas



#### Get in touch any time

For construction updates or questions about the steps to connect to natural gas, personalized cost savings and more, contact one of our Community Expansion Advisors.

#### **Community Expansion Contacts:**

Phone: 1-833-356-2689 Email: ceapplications@enbridge.com

\* Natural gas prices are based on Rate 1 rates in effect as of **April 1, 2023** and include the \$0.23 per m<sup>3</sup> expansion surcharge. Oil price is based on the latest available retail price. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of **Jan. 1, 2023** and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. They include the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Since individual fuel prices vary, savings assumptions may or the as accurate in your situation. Please use the savings calculator found on this page for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.

Cost and benefits

## How much can you save each year?

Lower costs, lower emissions, more convenience and peace of mind.



\* Natural gas prices are based on Rate 1 rates in effect as of April 1, 2023 and include the \$0.23 per m<sup>3</sup> expansion surcharge. Oil price is based on the latest available retail price. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of Jan. 1, 2023 and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. They include the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Since individual fuel prices vary, savings assumptions may or may not be as accurate in your situation. Please use the savings calculator found on this page for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.

#### **Bring home** all the benefits



#### More affordable

#### Lower carbon emissions

Natural gas can help reduce your home's carbon footprint.

#### **Billing and charges**

## Where does your money go?

Here's a helpful explanation of a few key items on your natural gas bill

#### Expansion Surcharge

The fairest way to cover the infrastructure costs of expanding natural gas service.

#### **Cost Adjustment**

Natural gas rates vary by season—you pay what we pay.

#### **Customer Charge**

This is a fixed \$22.88° amount that pays for 24/7 emergency response and other services.

\* Subject to change. Please note that all charges, except the fixed customer charge, vary based on how much natural gas you use.

#### Supply, Delivery and Transportation Charges

These cover the costs to buy and deliver natural gas to your home.

#### Frequently asked questions

#### **Q**: Why do I have to pay an additional charge towards the construction costs of the project?

**A:** For us to extend natural gas to rural areas where the cost of building the infrastructure is more than the revenue it generates, the Ontario Energy Board approved an additional expansion surcharge. This is a variable rate charge, based on your usage, of \$0.23/cubic metre of natural gas used. Since homes use more natural gas in colder months, the surcharge will be higher in winter. It will appear as a separate line item on your monthly bill for up to 40 years. Go to **enbridgegas.com/savewithgas** to get an estimate of your potential fuel savings.

#### **Q:** Why is the surcharge in effect for different lengths of time by community?

**A:** The length of time the surcharge remains in effect varies by community because the overall cost to serve each community is different, based on factors such as the distance of the community from an existing natural gas pipeline and more.

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 87 of 237

We've saved all kinds of money by converting to natural gas, especially over the cost of hydro these days. It just made sense.

#### – Phil Dewsnap, Homeowner, Fenelon Falls



"I live in a rural region. That means I have my own septic, my own water, and if things don't work, I'm in real trouble. Natural gas has helped me be more independent and I saved a really good buck."

- John Powell, Homeowner, Scugog Island



"The advice I would give others is to convert to natural gas. We've seen a lot of energy savings, the conversion was simple and you get some extra money in your pocket, so it's worth doing."

- Phil Dewsnap, Homeowner, Fenelon Falls

#### How to get connected

## 5 simple steps to switch

It's always best to complete your application for natural gas service as early as possible. This helps us to ensure you are included in our planning process.



#### 1. Inquire with us Visit enbridgegas.com/ savewithgas to review project details, calculate your estimated savings and engage our project team to answer any of your questions.



#### 2. Get an estimate from your local heating contractor

Once you have made your decision to convert, your contractor will submit the natural gas service application on your behalf. You will receive an email summary of the gas application as submitted by your contractor.

A member of our team will contact you to coordinate locating and marking all existing underground utilities.



#### 3. Acknowledge your account details

You will receive a confirmation email with a verification link prompting you to validate the following: your service address, homeowner and billing information.

You will also be provided details on the expansion surcharge, which will fluctuate monthly based on your natural gas use. Even with this surcharge, you can still save significantly every year by switching to natural gas.



#### 4. After we install the natural gas service

Contact your contractor to arrange for the installation and conversion of your natural gas equipment.



#### 5. The final step

Contact 1-877-362-7434 at least 48 hours in advance to arrange your meter activation and final inspection of the natural gas equipment.

#### Natural gas service installation policy

Enbridge Gas will provide and install at no cost, one service line per civic address to new customers provided that the distance between the Owner's property line and the front wall of house/building is 20 metres or less. Services in excess of this distance will result in additional charges of \$32 per metre (plus applicable taxes)<sup>\*</sup>. Call your local heating, ventilation and air conditioning (HVAC) provider for an assessment and to submit an application for gas service.

#### **IMPORTANT!**

Do not disconnect your existing fuel source or remove any equipment until your new natural gas service and gas meter have been installed. Take the first step to savings

## Let us know you're interested in connecting to natural gas



**Get in touch** 

any time

Please send the following information to ceapplications@enbridge.com
and a Community Expansion Advisor will contact you soon.

Name (please print)		
Address		
		Mail your completed expression of interest to us at:
Phone number	Enbridge Gas Community Expansion PO Box 618 Bobcaygeon, ON KOM 1A0	
Email address		
Existing primary heat source	Existing secondary heat source	Questions? We're here for you.
		Contact a Community Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natura	al gas, or a binding contract by either you or Enbridge Gas for natural gas service.	

## Choose to pay less for energy

Save up to 65% each year by switching to natural gas

#### What's inside:



See how much you can save

5-step guide to get connected



## Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know about connecting your home or business and all the benefits of affordable, reliable natural gas.

#### Save up to 65 percent\* each year

Compared to electricity, propane or oil, switching to natural gas could save you on home and water heating costs year round. It's more convenient: you'll never run out of fuel or wait for trucks to arrive.

#### Lower carbon emissions

Natural gas is cleaner than other fuels and can help reduce your home's carbon footprint.

#### It's easy to get started

Follow our simple five-step guide on page six to see how the connection process works.

#### See how much you can save

Use our online calculator to see how much you can save by switching to natural gas. Enter your home's size, age and a few more details to get a personalized estimate of annual savings.

Calculate your savings by visiting enbridgegas.com/savewithgas and finding your community page to use the calculator.

ahmed ab-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas



#### Get in touch any time

For construction updates or questions about the steps to connect to natural gas, personalized cost savings and more, contact one of our Community Expansion Advisors.

#### **Community Expansion Contacts:**

Phone: 1-833-356-2689 Email: ceapplications@enbridge.com

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Cost and benefits

## How much can you save each year?

Lower costs, lower emissions, more convenience and peace of mind.



\* Natural gas prices are based on Rate M1 rates in effect as of April 1, 2023 and include the \$0.23 per m3 expansion surcharge. Oil price is based on the latest available retail price. Electricity rates based on Hydro One Distribution rates (Mid-density RI) as of Jan. 1, 2023 and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. They include the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Since individual fuel prices vary, savings assumptions may or may not be as accurate in your situation. Please use the savings calculator found on this page for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.



#### More affordable

dryers, natural gas can make your home more comfortable

#### Lower carbon emissions

Natural gas can help reduce your home's carbon footprint.

#### **Billing and charges**

## Where does your money go?

Here's a helpful explanation of a few key items on your natural gas bill

#### Expansion Surcharge

The fairest way to cover the infrastructure costs of expanding natural gas service.

#### **Cost Adjustment**

Natural gas rates vary by season—you pay what we pay.

#### **Customer Charge**

This is a fixed \$23.98<sup>°</sup> amount that pays for 24/7 emergency response and other services.

\* Subject to change. Please note that all charges, except the fixed customer charge, vary based on how much natural gas you use.

#### Supply, Delivery and Transportation Charges

These cover the costs to buy and deliver natural gas to your home.

#### Frequently asked questions

#### **Q:** Why do I have to pay an additional charge towards the construction costs of the project?

**A:** For us to extend natural gas to rural areas where the cost of building the infrastructure is more than the revenue it generates, the Ontario Energy Board approved an additional expansion surcharge. This is a variable rate charge, based on your usage, of \$0.23/cubic metre of natural gas used. Since homes use more natural gas in colder months, the surcharge will be higher in winter. It will appear as a separate line item on your monthly bill for up to 40 years. Go to **enbridgegas.com/savewithgas** to get an estimate of your potential fuel savings.

#### **Q:** Why is the surcharge in effect for different lengths of time by community?

**A:** The length of time the surcharge remains in effect varies by community because the overall cost to serve each community is different, based on factors such as the distance of the community from an existing natural gas pipeline and more.
Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 94 of 237

We've saved all kinds of money by converting to natural gas, especially over the cost of hydro these days. It just made sense.

### – Phil Dewsnap, Homeowner, Fenelon Falls



"I live in a rural region. That means I have my own septic, my own water, and if things don't work, I'm in real trouble. Natural gas has helped me be more independent and I saved a really good buck."

- John Powell, Homeowner, Scugog Island



"The advice I would give others is to convert to natural gas. We've seen a lot of energy savings, the conversion was simple and you get some extra money in your pocket, so it's worth doing."

- Phil Dewsnap, Homeowner, Fenelon Falls

### How to get connected

# 5 simple steps to switch

It's always best to complete your application for natural gas service as early as possible. This helps us to ensure you are included in our planning process.



### 1. Inquire with us Visit enbridgegas.com/ savewithgas to review project details, calculate your estimated savings and engage with our project team to answer any of your guestions.



### 2. Get an estimate from your local heating contractor

Once you have made your decision to convert, your contractor will submit the natural gas service application on your behalf. You will receive an email summary of the gas application as submitted by your contractor.

A member of our team will contact you to coordinate locating and marking all existing underground utilities.



### 3. Acknowledge your account details

You will receive a confirmation email with a verification link prompting you to validate the following: your service address, homeowner and billing information.

You will be provided details on the expansion surcharge, which will fluctuate monthly based on your natural gas use. Even with this surcharge, you can still save significantly every year by switching to natural gas.



### 4. After we install the natural gas service

Contact your contractor to arrange for the gas meter installation and conversion of your natural gas equipment.



### 5. The final step

Your new natural gas equipment will be turned on and inspected as required by the Technical Standards and Safety Act.

### Natural gas service installation policy

Enbridge Gas will provide and install at no cost, one service line per civic address to new customers which will include up to 30 metres of laid pipe and anything beyond that would be \$45 per metre (plus applicable taxes). Call your local heating, ventilation and air conditioning (HVAC) provider for an assessment and to submit an application for gas service.

### **IMPORTANT!**

Do not disconnect your existing fuel source or remove any equipment until your new natural gas service and gas meter have been installed. Take the first step to savings

# Let us know you're interested in connecting to natural gas



**Get in touch** 

any time

Please send the following information to <b>ceapplications@enbridge.com</b>
and a Community Expansion Advisor will contact you soon.

Name (please print)		
Address		
		Prefer postal mail?   Mail your completed expression   of interest to us at:
Phone number	Enbridge Gas Community Expansion PO Box 618 Bobcaygeon, ON KOM 1A0	
Email address		
Existing Primary Heat Source	Existing Secondary Heat Source	Questions?
		Contact a Community Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natura	gas, or a binding contract by either you or Enbridge Gas for natural gas service.	

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 97 of 237

Attachment 19

### **ENBRIDGE GAS**

# CE Selwyn Campaign

October 5, 2022

CONTEXT

### **CE SELWYN CAMPAIGN**

# Concept 1: From pains to gains

We know that customers often make buying decisions based on emotions. In this concept, we focus on negative emotions (pain points) to hook interest initially, supported by the benefits of switching to natural gas.

CONTEXT

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 99 of 237

### Selwyn

# Are you paying too much for home heating?

Now you can switch to natural gas and save up to 60%

You could cut your energy bills in half!

# Why choose natural gas?

\$
\$

Save money compared to electricity, propane or oil.



Never run out of fuel or have to wait for deliveries again.



Make your home more comfortable with natural gas fireplaces, barbecues, clothes dryers and more.



Reduce your home's carbon footprint.

# What your neighbours are saying



"We've seen a lot of energy savings since we converted. I think our first hydro bill when we moved in here was somewhere around \$800. Now we're down, saved maybe \$1,100 or \$1,500 a year by converting to natural gas."

### Phil, Fenelon Falls

"It was costing me \$5,000 a year for oil fired heating, and now I'm paying 1,400 bucks a year from Enbridge. I'm sort of loving it."

John, Scugog

# Visit **enbridgegas.com/savewithgas** to calculate your savings.



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Concept 1a — Social (Static)



Concept 1a — Social (Carousel)



Enbridge Gas Sponsored

Selwyn—enjoy home comfort for less. Get lower energy bills and more peace of mind when you switch to natural gas. [113]



### Social—Video



See why Selwyn welcomes natural gas. It's more affordable, reliable and cleaner than propane, oil or wood. [106]



Hear from others who've made the switch [40] Learn more Calculate your savings [22]

### Concept 1 — Google Discovery Image Options



CE Selwyn Campaign Enbridge Gas

### Google Discovery Copy

Short headline text – 5 variants (40 characters max)	Long headline text (90 characters max)	Description (90 characters max)	CTA:	Business name:	Destination URL:
Save big with natural gas (25)	See why Selwyn welcomes natural gas. It's affordable, reliable and cleaner. (75)	Save on energy bills with a cleaner and more convenient choice than oil, propane or wood. (86)	Learn more	Enbridge Gas	enbridgegas.com/savewithgas
Affordable energy can be yours (30)	Switch to natural gas to save up to 60 percent on energy bills and cut emissions too! (85)	Visit enbridgegas.com/savewithgas to calculate your savings and hear what others are saying. (89)			
Why choose natural gas? (23)	See why natural gas is Ontario's preferred choice and good news for Selwyn. (75)	Enjoy peace of mind and savings up to 60 percent when you switch—it's easy! (75)			
Tired of high energy costs? (28)	Home comfort doesn't need to be costly anymore—reliable natural gas is on the way! (84)	Never run out of fuel or have to wait for deliveries again. (58)			
Save on energy and emissions (28)	Good news for Selwyn–affordable, reliable, cleaner energy is coming soon! (73)	Reduce your energy bills by up to 60% with a cleaner choice than oil, propane or wood. (86)			

### **CE SELWYN CAMPAIGN**

# Concept 2: Welcome home neighbour

With a focus on optimism, warm welcomes and community connections this concept creates positive emotions. Cost savings and convenience close the deal.

CONTEXT

Concept 2 — Social (Static)



Concept 2 — Social (Carousel)

**Enbridge Gas** 



### Social (Video)



Still heating with oil or propane? Switch to natural gas and save up to 60 percent on your energy costs. [104]



Hear why your neighbours made the switch [40] Learn more Cut costs and carbon [20]

### Concept 2 — Google Discovery Image Options



**CE SELWYN CAMPAIGN** 

# YouTube Companion Ads

CONTEXT



### YouTube Video Action Ads + Companion Ads

### Option 1B



Long Headline Text:

Selwyn: Now you can switch to natural gas and save up to 60 percent each year! (88/90)

Description Text: Cut your energy bills in half with affordable, reliable natural gas. (68/70)

Call-to-Action Text: Start now (10/10) Headline Text: Save on heating (15/15)

Display URL: enbridgegas.com/savewithgas

CE Selwyn Campaign Enbridge Gas



Long Headline Text: Natural gas is reliable, convenient and much more affordable than other energy options. (87/90)

Description Text: **Selwyn**: Switch to natural gas and save up to 60% a year! (68/70) Call-to-Action Text: Start now (10/10) Headline Text: Save on heating (15/15)

Display URL: enbridgegas.com/savewithgas

CE Selwyn Campaign Enbridge Gas Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 114 of 237

# Are you paying too much for home heating?

Come visit us to see how much you can save!

**Tuesday, Feb. 7** 12 p.m. – 7 p.m.

# Learn about the benefits of switching to natural gas and how to get connected.

### **Stop by our Information Session at:**

Community Hall 836 Charles St, Bridgenorth

Drop by to have all **your questions answered** and let us know if you're interested in connecting to natural gas.

Talk about potential savings on your home energy bills.

Connect with us at: ceapplications@enbridge.com



Attachment 21

# Mohawks of the Bay of Quinte and Shannonville Community Expansion Project

# Virtual Information Session May 16 – 29

# Mohawks of the Bay of Quinte and Shannonville Community Expansion Project

Virtual Information Session May 16 – 29

# Mohawks of the Bay of Quinte and Shannonville Community Expansion Project

## **Open House**

### Location

Mohawks Bay of Quinte Community Centre (upstairs) 1807 York Road, Deseronto

**Date and time** May 30, 4 – 7 p.m.



### Marketing Creative Approval Sign Off Document



Project name:	LUG 5-Step Sign Up Card
Date:	
Client:	Community Expansion
Marketing Lead:	Brock Hamilton

Approvals	Date	Name
Attachment Lead:		Travis James

Prints	
Print quantity:	

Shipping information	
Ship to (name):	
Ship to (address):	
Phone (for courier):	
Date (to arrive):	

# How to start saving with natural gas

Safe. Reliable. Affordable. Abundant.



### Inquire with us

Visit **enbridgegas.com/savewithgas** to review project details, calculate your estimated savings and engage with our project team to answer any of your questions.



### Get an estimate from your local heating contractor

Once you have made your decision to convert, your contractor will submit the natural gas service application on your behalf.

You will receive an email summary of the gas application as submitted by your contractor.

A member of our team will contact you to coordinate locating and marking all existing underground utilities.



### Acknowledge your account details

You will receive a confirmation email with a verification link prompting you to validate the following: your service address, homeowner and billing information.

You will be provided details on the expansion surcharge, which will fluctuate monthly based on your natural gas use. Even with this surcharge, you can still save significantly every year by switching to natural gas.



### After we install the natural gas service

Contact your contractor to arrange for the gas meter installation and conversion of your natural gas equipment.



### The final step

Your new natural gas equipment will be turned on and inspected as required by the Technical Standards and Safety Act.

If you have any questions, please reach out to one of our Community Expansion advisors.

### **Enbridge Gas Community Expansion Advisors**

Email: ceapplications@enbridge.com Phone: 1-833-356-2689





For more information visit enbridgegas.com/savewithgas to learn about the benefits of natural gas and the many ways it can help fuel your lifestyle.



### () IMPORTANT

Do not disconnect your existing fuel source or remove any equipment until your new natural gas service and gas meter have been installed.

© Enbridge Gas Inc.

# Choose to pay less for energy

Save up to 63% each year by switching to natural gas

### What's inside:



See how much you can save

5-step guide to get connected



# Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know about connecting your home or business and all the benefits of affordable, reliable natural gas.

### Save up to 63 percent\* each year

Compared to electricity, propane or oil, switching to natural gas could save you on home and water heating costs year round. It's more convenient: you'll never run out of fuel or wait for trucks to arrive.

### Lower carbon emissions

Natural gas is cleaner than other fuels and can help reduce your home's carbon footprint.

### It's easy to get started

Follow our simple five-step guide on page six to see how the connection process works.

### See how much you can save

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Calculate your savings by visiting enbridgegas.com/savewithgas and finding your community page to use the calculator.

ahmed ab-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas



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Cost and benefits

# How much can you save each year?

Lower costs, lower emissions, more convenience and peace of mind.



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### **Bring home** all the benefits



### More affordable

dryers, natural gas can make your home more comfortable

### Lower carbon emissions

Natural gas can help reduce your home's carbon footprint.

### **Billing and charges**

# Where does your money go?

Here's a helpful explanation of a few key items on your natural gas bill

### Expansion Surcharge

The fairest way to cover the infrastructure costs of expanding natural gas service.

### **Cost Adjustment**

Natural gas rates vary by season—you pay what we pay.

### **Customer Charge**

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\* Subject to change. Please note that all charges, except the fixed customer charge, vary based on how much natural gas you use.

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These cover the costs to buy and deliver natural gas to your home.

### Frequently asked questions

### **Q:** Why do I have to pay an additional charge towards the construction costs of the project?

**A:** For us to extend natural gas to rural areas where the cost of building the infrastructure is more than the revenue it generates, the Ontario Energy Board approved an additional expansion surcharge. This is a variable rate charge, based on your usage, of \$0.23/cubic metre of natural gas used. Since homes use more natural gas in colder months, the surcharge will be higher in winter. It will appear as a separate line item on your monthly bill for up to 40 years. Go to **enbridgegas.com/savewithgas** to get an estimate of your potential fuel savings.

### **Q:** Why is the surcharge in effect for different lengths of time by community?

**A:** The length of time the surcharge remains in effect varies by community because the overall cost to serve each community is different, based on factors such as the distance of the community from an existing natural gas pipeline and more.

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 125 of 237

We've saved all kinds of money by converting to natural gas, especially over the cost of hydro these days. It just made sense.

### – Phil Dewsnap, Homeowner, Fenelon Falls



"I live in a rural region. That means I have my own septic, my own water, and if things don't work, I'm in real trouble. Natural gas has helped me be more independent and I saved a really good buck."

- John Powell, Homeowner, Scugog Island



"The advice I would give others is to convert to natural gas. We've seen a lot of energy savings, the conversion was simple and you get some extra money in your pocket, so it's worth doing."

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A member of our team will contact you to coordinate locating and marking all existing underground utilities.



### 3. Acknowledge your account details

You will receive a confirmation email with a verification link prompting you to validate the following: your service address, homeowner and billing information.

You will be provided details on the expansion surcharge, which will fluctuate monthly based on your natural gas use. Even with this surcharge, you can still save significantly every year by switching to natural gas.



### 4. After we install the natural gas service

Contact your contractor to arrange for the gas meter installation and conversion of your natural gas equipment.



### 5. The final step

Your new natural gas equipment will be turned on and inspected as required by the Technical Standards and Safety Act.

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Enbridge Gas will provide and install at no cost, one service line per civic address to new customers which will include up to 30 metres of laid pipe and anything beyond that would be \$45 per metre (plus applicable taxes). Call your local heating, ventilation and air conditioning (HVAC) provider for an assessment and to submit an application for gas service.

### **IMPORTANT!**

Do not disconnect your existing fuel source or remove any equipment until your new natural gas service and gas meter have been installed. Take the first step to savings

# Let us know you're interested in connecting to natural gas



**Get in touch** 

any time

Please send the following information to ceapplications@enbridge.com
and a Community Expansion Advisor will contact you soon.

Name (please print)		
Address		
		Prefer postal mail?   Mail your completed expression   of interest to us at:
Phone number	Enbridge Gas Community Expansion PO Box 618 Bobcaygeon, ON KOM 1A0	
Email address		
Existing Primary Heat Source	Existing Secondary Heat Source	Questions? We're here for you.
		Contact a Community Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natura	I gas, or a binding contract by either you or Enbridge Gas for natural gas service.	





# Connect with us at: ceapplications@enbridge.com





and let us know if you're interested in connecting Drop by to have all your questions answered

1807 York Rd. Deseronto

Stop by our Information Session at:

natural gas and how to get connected.

Learn about the benefits of switching to

Mohawk Community Centre—Upper floor

on your home energy bills Talk about potential savings Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 128 of 237

2 p.m. – / p.m.

10 a.m. – 3 p.m.

Thursday, Feb. 2

Wednesday, Feb. 1

much you can save!

Come visit us to see ho

Are you paying

too much

for home heating?

# Choose to pay less for energy

Save up to 65% each year by switching to natural gas

### What's inside:



See how much you can save

5-step guide to get connected


# Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know about connecting your home or business and all the benefits of affordable, reliable natural gas.

#### Save up to 65 percent\* each year

Compared to electricity, propane or oil, switching to natural gas could save you on home and water heating costs year round. It's more convenient: you'll never run out of fuel or wait for trucks to arrive.

#### Lower carbon emissions

Natural gas is cleaner than other fuels and can help reduce your home's carbon footprint.

#### It's easy to get started

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Use our online calculator to see how much you can save by switching to natural gas. Enter your home's size, age and a few more details to get a personalized estimate of annual savings.

Calculate your savings by visiting enbridgegas.com/savewithgas and finding your community page to use the calculator.

ahmed ab-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas



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For construction updates or questions about the steps to connect to natural gas, personalized cost savings and more, contact one of our Community Expansion Advisors.

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Phone: 1-833-356-2689 Email: ceapplications@enbridge.com

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Cost and benefits

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#### **Bring home** all the benefits



#### More affordable

#### Lower carbon emissions

Natural gas can help reduce your home's carbon footprint.

#### **Billing and charges**

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The fairest way to cover the infrastructure costs of expanding natural gas service.

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Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 133 of 237

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#### – Phil Dewsnap, Homeowner, Fenelon Falls



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# Let us know you're interested in connecting to natural gas



Get in touch

any time

Please send the following information to **ceapplications@enbridge.com** and a Community Expansion Advisor will contact you soon.

Name (please print)		
Address		
		Mail your completed expression of interest to us at:
Phone number		Enbridge Gas Community Expansion PO Box 618 Bobcaygeon, ON KOM 1A0
Email address		
Existing primary heat source	Existing secondary heat source	Questions? We're here for you.
		Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natur		

# Choose to pay less for energy

Save up to 65% each year by switching to natural gas

#### What's inside:



See how much you can save

5-step guide to get connected



# Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know about connecting your home or business and all the benefits of affordable, reliable natural gas.

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#### Lower carbon emissions

Natural gas is cleaner than other fuels and can help reduce your home's carbon footprint.

#### It's easy to get started

Follow our simple five-step guide on page six to see how the connection process works.

#### See how much you can save

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ahmed ab-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas



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**Cost and benefits** 

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Lower costs, lower emissions, more convenience and peace of mind.



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#### Bring home all the benefits



Natural gas can help reduce

your home's carbon footprint.

#### **Billing and charges**

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Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 140 of 237

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"I live in a rural region. That means I have my own septic, my own water, and if things don't work, I'm in real trouble. Natural gas has helped me be more independent and I saved a really good buck."

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**Get in touch** 

any time

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and a Community Expansion Advisor will contact you soon.

Name (please print)		
Address		
		Prefer postal mail?   Mail your completed expression   of interest to us at:
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Email address		
Existing Primary Heat Source	Existing Secondary Heat Source	Questions? We're here for you.
		Contact a Community Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natural gas, or a binding contract by either you or Enbridge Gas for natural gas service.		

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 143 of 237

# Are you paying too much for home heating?

Dinner and prizes available!\*

Come visit us to see how much you can save!

**Wednesday, April 19** 11 a.m. – 8 p.m.

# Learn about the benefits of switching to natural gas and how to get connected.

#### Stop by our Information Session at:

Mohawk Community Centre—First floor 1807 York Rd. Deseronto

Guest dinner: 5:30 p.m. – 7:30 p.m. Prize draw at 7 p.m. \*Must speak with a rep to be entered into the draw.

Drop by to have all **your questions answered** and let us know if you're interested in connecting to natural gas.

Talk about potential savings on your home energy bills.

#### Connect with us at: ceapplications@enbridge.com



#### Marketing Creative Approval Sign Off Document



Project name:	LUG 5-Step Sign Up Card
Date:	
Client:	Community Expansion
Marketing Lead:	Brock Hamilton

Approvals	Date	Name
Attachment Lead:		Travis James

Prints	
Print quantity:	

Shipping information	
Ship to (name):	
Ship to (address):	
Phone (for courier):	
Date (to arrive):	

# How to start saving with natural gas

Safe. Reliable. Affordable. Abundant.



#### Inquire with us

Visit **enbridgegas.com/savewithgas** to review project details, calculate your estimated savings and engage with our project team to answer any of your questions.



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If you have any questions, please reach out to one of our Community Expansion advisors.

#### **Enbridge Gas Community Expansion Advisors**

Email: ceapplications@enbridge.com Phone: 1-833-356-2689





For more information visit enbridgegas.com/savewithgas to learn about the benefits of natural gas and the many ways it can help fuel your lifestyle.



#### () IMPORTANT

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© Enbridge Gas Inc.



# **Hidden Valley**

Community Expansion Project



Join us June 20 – July 4



# Choose to pay less for energy

Save up to 65% each year by switching to natural gas

#### What's inside:



See how much you can save 5-step guide to get connected



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# Let us know you're interested in connecting to natural gas



Get in touch

any time

Please send the following information to **ceapplications@enbridge.com** and a Community Expansion Advisor will contact you soon.

Name (please print)		
Address		
		Mail your completed expression of interest to us at:
Phone number		Enbridge Gas Community Expansion PO Box 618 Bobcaygeon, ON KOM 1A0
Email address		
Existing primary heat source	Existing secondary heat source	Questions? We're here for you.
		Contact a Community Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natural gas, or a binding contract by either you or Enbridge Gas for natural gas service.		

# Choose to pay less for energy

Save up to 65% each year by switching to natural gas

#### What's inside:



See how much you can save

5-step guide to get connected



# Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know about connecting your home or business and all the benefits of affordable, reliable natural gas.

#### Save up to 65 percent\* each year

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#### Lower carbon emissions

Natural gas is cleaner than other fuels and can help reduce your home's carbon footprint.

#### It's easy to get started

Follow our simple five-step guide on page six to see how the connection process works.

#### See how much you can save

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ahmed ab-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas



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**Cost and benefits** 

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Natural gas can help reduce

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#### Frequently asked questions

#### **Q:** Why do I have to pay an additional charge towards the construction costs of the project?

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#### More affordable

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Community Expansion Project

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## Bobcaygeon Information Session Advertisement Kiawartha This Week November 2022



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Royal Canadian Legion Branch 239 96 King St. E, Bobcaygeon

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Bobcaygeon Attachment Package November 2022 – January 2023 Take the first step to savings

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Completing this Expression of Interest Card is not an application for natura intended to help us understand community interest in converting to natural applications for this expansion project in summer 2023.	i gas, or a binding contract by either you or Enbridge Gas for natural gas service. The Expression of Interest Card is gas if it were to become available. Pending regulatory approvals, we anticipate that we will begin to accept natural gas	



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I have my own septic, my own water, and if things don't work, I'm in real trouble. Natural gas has helped me be more independent and I saved a really good buck."

- John Powell, Homeowner, Scugog Island

"The advice I would give others is to convert to natural gas. We've seen a lot of energy savings, the conversion was simple and you get some extra money in your pocket, so it's worth doing."

- Phil Dewsnap, Homeowner, Fenelon Falls

Take the first step to savings

## Let us know you're interested in connecting to natural gas



Please send the following information to <b>ceapplications@enbridge.com</b> and a Community Expansion Advisor will contact you soon.		Get in touch any time
Name (please print)		-
Address		- Prefer postal mail? Mail your completed expression of interest to us at:
Phone number		Enbridge Gas Community Expansion PO Box 618 Bobcaygeon, ON KOM 1A0
Email address		
Existing Primary Heat Source	Existing Secondary Heat Source	Questions? We're here for you. Contact a Community Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natural intended to help us understand community interest in converting to natural applications for this expansion project in summer 2023.	l gas, or a binding contract by either you or Enbridge Gas for natural gas service. The Expression of Interest Card is gas if it were to become available. Pending regulatory approvals, we anticipate that we will begin to accept natural gas	5

## Digital/Social Media Ads December 2022 – January 2023





Enbridge Gas Sponsored

Bobcaygeon—enjoy home comfort for less. Get lower energy bills and more peace of mind when you switch to natural gas. [117]





```
Coming soon to
Bobcaygeon! [26]
Let us know you're interested [29]
```



#### **Enbridge Gas**

Sponsored

Have you heard? Natural gas is coming to Bobcaygeon! Find out why Ontarians choose Enbridge Gas. [96]





#### **Enbridge Gas**

Sponsored

Have you heard? Natural gas is coming to Bobcaygeon! Find out why Ontarians choose Enbridge Gas. [96]





Hear from others who've made the switch [40] Learn more
Let us know you're interested [29]



Still heating with oil or propane? Switch to natural gas and save up to 55% on your energy costs. [97]



ENBRIDGEGAS.COM

Hear why your neighbours made the switch [40] Learn more Let us know you're interested [29]

Short headline text - 5 variants (40 characters max)	Long headline text (90 characters max)	Description (90 characters max)	1
Save big with natural gas (25)	See why Ontarians welcome natural gas. It's affordable, reliable and cleaner. (77)	Save on energy bills with a cleaner and more convenient choice than oil, propane or wood. (86)	
Affordable energy can be yours (30)	Switch to natural gas to save up to 55 percent on energy bills and cut emissions too! (85)	Visit enbridgegas.com/savewithgas to let us know you're interested. (67)	
Why choose natural gas? (23)	See why natural gas is Ontario's preferred choice and good news for Bobcaygeon. (79)	Enjoy peace of mind and savings up to 55 percent when you switch—it's easy! (75)	
Tired of high energy costs? (28)	Home comfort doesn't need to be costly anymore—reliable natural gas is on the way! (84)	Never run out of fuel or have to wait for deliveries again. (58)	
Save on energy and emissions (28)	Good news for Bobcaygeon—affordable, reliable, cleaner energy is coming soon! (77)	Reduce your energy bills by up to 55% with a cleaner choice than oil, propane or wood. (86)	



Long Headline Text: **Bobcaygeon**: Are you paying too much for home heating? (53/90)

Description Text: Let us know you're interested in switching to affordable natural gas (68/70)



Long Headline Text:

Bobcaygeon: You can switch to natural gas and save up to 55 percent each year! (78/90)

Description Text: Let us know you're interested in affordable, reliable natural gas. (66/70)

Kiosk Flyer January 2023
## Are you paying too much for home heating?

Come visit us to see how much you can save!

**Saturday, Jan. 21** 9:30 a.m. – 6:00 p.m.

## Learn about the benefits of switching to natural gas and how to get connected.

**Stop by our Information Session at:** Royal Canadian Legion Branch 239

96 King St E, Bobcaygeon

Drop by to have all **your questions answered** and let us know if you're interested in connecting to natural gas.

Talk about potential savings on your home energy bills.

Connect with us at: ceapplications@enbridge.com



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## Community Expansion Construction Trailer Wrap March 2023 – Present

## **Bobcaygeon Community Expansion Project**

In partnership with NPLC

For more information: ceapplications@enbridge.com







CMYK SCALE: 1:1

10.375x10.5

P.M.: MA

9.625 x 9.75 DESIGNER: CF

No bleed

PRODUCTION: CR

# Choose to pay less for energy

Save up to 55% each year by switching to natural gas



## Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know about connecting your home or business and all the benefits of affordable, reliable natural gas.

## Save up to 55 percent\* each year

Compared to electricity, propane or oil, switching to natural gas could save you on home and water heating costs year round. It's more convenient: you'll never run out of fuel or wait for trucks to arrive.

### Lower carbon emissions

Natural gas is cleaner than other fuels and can help reduce your home's carbon footprint.

### It's easy to get started

Follow our simple five-step guide on page six to see how the connection process works.

#### See how much you can save

Use our online calculator to see how much you can save by switching to natural gas. Enter your home's size, age and a few more details to get a personalized estimate of annual savings.

Calculate your savings by visiting enbridgegas.com/savewithgas and finding your community page to use the calculator.

ahmed ab-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas



### Get in touch any time

For construction updates or questions about the steps to connect to natural gas, personalized cost savings and more, contact one of our Community Expansion Advisors.

### **Community Expansion Contacts:**

Phone: 1-833-356-2689 Email: ceapplications@enbridge.com

\* Natural gas prices are based on Rate 1 rates in effect as of **Oct. 1, 2022** and include the \$0.23 per m<sup>3</sup> expansion surcharge. Oil price is based on the latest available retail price. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of **Jan. 1, 2022** and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. They include the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Since individual fuel prices vary, savings assumptions may or the as accurate in your situation. Please use the savings calculator found on this page for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.

**Cost and benefits** 

## How much can you save each year?

Lower costs, lower emissions, more convenience and peace of mind.

## **Residential annual heating bills** Annual cost comparison: space and water heating **55**<sup>%</sup> 27% 7% Natural gas Electricity Heating oil Propane

\* Natural gas prices are based on Rate 1 rates in effect as of **Oct. 1, 2022** and include the \$0.23 per m<sup>3</sup> expansion surcharge. Oil price is based on the latest available retail price. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of **Jan. 1, 2022** and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. They include the new Ontario Electricity Rebate (OER). The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Since individual fuel prices vary, savings assumptions may or may not be as accurate in your situation. Please use the savings calculator found on this page for a more accurate savings estimate. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. Carbon price is included for all energy types as reported. HST is not included.

## Bring home all the benefits



#### **More affordable**

Compared to other fuels and electricity, natural gas is the most cost-effective way to heat your home and water.



#### **Comfort and convenience**

Never worry about running out of fuel or waiting for deliveries again.



#### Versatile and efficient

From fireplaces to clothes dryers, natural gas can make your home more comfortable and enjoyable.



#### Lower carbon emissions

Natural gas can help reduce your home's carbon footprint.

#### **Billing and charges**

## Where does your money go?

Here's a helpful explanation of a few key items on your natural gas bill

## Expansion Surcharge

The fairest way to cover the infrastructure costs of expanding natural gas service.

## **Cost Adjustment**

Natural gas rates vary by season—you pay what we pay.

## **Customer Charge**

This is a fixed \$22.12° amount that pays for 24/7 emergency response and other services.

\* Subject to change. Please note that all charges, except the fixed customer charge, vary based on how much natural gas you use.

## Supply, Delivery and Transportation Charges

These cover the costs to buy and deliver natural gas to your home.

## Frequently asked questions

## **Q**: Why do I have to pay an additional charge towards the construction costs of the project?

**A:** For us to extend natural gas to rural areas where the cost of building the infrastructure is more than the revenue it generates, the Ontario Energy Board approved an additional expansion surcharge. This is a variable rate charge, based on your usage, of \$0.23/cubic metre of natural gas used. Since homes use more natural gas in colder months, the surcharge will be higher in winter. It will appear as a separate line item on your monthly bill for up to 40 years. Go to **enbridgegas.com/savewithgas** to get an estimate of your potential fuel savings.

## **Q:** Why is the surcharge in effect for different lengths of time by community?

**A:** The length of time the surcharge remains in effect varies by community because the overall cost to serve each community is different, based on factors such as the distance of the community from an existing natural gas pipeline and more.

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 210 of 237

We've saved all kinds of money by converting to natural gas, especially over the cost of hydro these days. It just made sense.

## – Phil Dewsnap, Homeowner, Fenelon Falls



"I live in a rural region. That means I have my own septic, my own water, and if things don't work, I'm in real trouble. Natural gas has helped me be more independent and I saved a really good buck."

- John Powell, Homeowner, Scugog Island



"The advice I would give others is to convert to natural gas. We've seen a lot of energy savings, the conversion was simple and you get some extra money in your pocket, so it's worth doing."

- Phil Dewsnap, Homeowner, Fenelon Falls

Take the first step to savings

## Let us know you're interested in connecting to natural gas



Get in touch

any time

Please send the following information to **ceapplications@enbridge.com** and a Community Expansion Advisor will contact you soon.

Name (please print)		
Address		<b>Prefer postal mail?</b> Mail your completed expression of interest to us at:
Phone number		Enbridge Gas Community Expansion PO Box 618 Bobcaygeon, ON KOM 1A0
Email address		
Existing Primary Heat Source	Existing Secondary Heat Source	Questions? We're here for you. Contact a Community Expansion Advisor:
Signature	Date	1-833-356-2689 ceapplications@enbridge.com
Completing this Expression of Interest Card is not an application for natural intended to help us understand community interest in converting to natural	gas, or a binding contract by either you or Enbridge Gas for natural gas service. The Expression of Interest Card is gas if it were to become available. Pending regulatory approvals, we anticipate that we will begin to accept natural gas	

applications for this expansion project in summer 2023.

Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED.45, Attachment 1, Page 212 of 237

Attachment 31

## **ENBRIDGE GAS**



November 29, 2022



## **CE BOBCAYGEON**

## Concept 1: From pains to gains

We know that customers often make buying decisions based on emotions. In this concept, we focus on negative emotions (pain points) to hook interest initially, supported by the benefits of switching to natural gas.

CONTEXT

Concept 1a — Social (Static)





Concept 1a — Social (Carousel)



Enbridge Gas Sponsored

Bobcaygeon—enjoy home comfort for less. Get lower energy bills and more peace of mind when you switch to natural gas. [117]





Bobcaygeon! [26] Let us know you're interested [29]



#### Social—Video



See why Bobcaygeon welcomes natural gas. It's more affordable, reliable and cleaner than propane, oil or wood. [110]



Hear from others who've made the switch [40] Learn more Let us know you're interested [29]



### Concept 1 — Google Discovery Image Options



11.29.2022

**CE Bobcaygeon** Enbridge Gas

## Google Discovery Copy

Short headline text - 5 variants (40 characters max)	Long headline text (90 characters max)	Description (90 characters max)	CTA:	Business name:	Destination URL:
Save big with natural gas (25)	See why Ontarians welcome natural gas. It's affordable, reliable and cleaner. (77)	Save on energy bills with a cleaner and more convenient choice than oil, propane or wood. (86)	Learn more	Enbridge Gas	enbridgegas.com/savewithgas
Affordable energy can be yours (30)	Switch to natural gas to save up to 55 percent on energy bills and cut emissions too! (85)	Visit enbridgegas.com/savewithgas to let us know you're interested. (67)			
Why choose natural gas? (23)	See why natural gas is Ontario's preferred choice and good news for Bobcaygeon. (79)	Enjoy peace of mind and savings up to 55 percent when you switch—it's easy! (75)			
Tired of high energy costs? (28)	Home comfort doesn't need to be costly anymore—reliable natural gas is on the way! (84)	Never run out of fuel or have to wait for deliveries again. (58)			
Save on energy and emissions (28)	Good news for Bobcaygeon—affordable, reliable, cleaner energy is coming soon! (77)	Reduce your energy bills by up to 55% with a cleaner choice than oil, propane or wood. (86)			

## **CE BOBCAYGEON**

## Concept 2: Welcome home neighbour

With a focus on optimism, warm welcomes and community connections this concept creates positive emotions. Cost savings and convenience close the deal.

CONTEXT

Concept 2 — Social (Static)



Concept 2 — Social (Carousel)





#### Social (Video)



Still heating with oil or propane? Switch to natural gas and save up to 55% on your energy costs. [97]



Hear why your neighbours made the switch [40] Learn more Let us know you're interested [29]



## Concept 2 — Google Discovery Image Options

Option 1

Option 2













**CE Bobcaygeon** Enbridge Gas



**CE BOBCAYGEON** 

## YouTube Companion Ads - Concept 1

CONTEXT



**CE BOBCAYGEON** 

## YouTube Companion Ads - Concept 2

CONTEXT

#### YouTube Video Action Ads + Companion Ads

Option 2A



Long Headline Text:

**Bobcaygeon:** You can switch to natural gas and save up to 55 percent each year! (78/90)

Description Text: Let us know you're interested in affordable, reliable natural gas. (66/70)

Call-to-Action Text: Learn more (10/10) Headline Text: Save on heating (15/15)

Display URL: enbridgegas.com/savewithgas

CE Bobcaygeon Enbridge Gas **CE BOBCAYGEON** 

## YouTube Companion Ads - Concept 3

CONTEXT



Long Headline Text: Natural gas is reliable, convenient and much more affordable than other energy options. (87/90)

Description Text: **Bobcaygeon**: Let us know you're interested. (42/70) Call-to-Action Text: Learn more (10/10) Headline Text: Save on heating (15/15)

Display URL: enbridgegas.com/savewithgas

CE Bobcaygeon Enbridge Gas

## Ready to cut your energy bills in half?

Bobcaygeon Community Expansion Information Session

**Thursday, Dec. 1** 5 p.m. – 8 p.m.

## Learn about the benefits of switching to natural gas and how to get connected.

## **Stop by our Information Session at:**

Royal Canadian Legion Branch 239 96 King St E, Bobcaygeon

Representatives will be available to answer all your questions:

Drop by to have all **your questions answered** and let us know if you're interested in connecting to natural gas.

**Talk about potential savings** on your home energy bills.

Connect with us at: ceapplications@enbridge.com



Attachment 33

## **Bobcaygeon Community Expansion Project**

In partnership with NPLC

For more information: ceapplications@enbridge.com





Facebook Ad for Sandford Community Expansion Project Active from March 20 – April 2, 2023



... X

Join us from March 20 - April 2, 2023, for our virtual information session where you can learn more about the Sandford Community Expansion project. You will be able to provide feedback and comments on the project, supporting the overall design and execution.



# Choose to pay less for energy

Save up to 65% each year by switching to natural gas



## Ready to cut energy bills in half?

**Good news**—natural gas is a convenient solution to help you save. This package will guide you through everything you need to know and the benefits of affordable, reliable natural gas.

## Save up to 65 percent\* each year

Compared to alternative heating sources like electric baseboard, propane or oil, switching to natural gas could save you on home and water heating costs year round.

#### Lower carbon emissions

Natural gas is cleaner than other fuels, such as propane and oil, and can help reduce your home's carbon footprint.

#### See how much you can save

Calculate your savings by visiting enbridgegas.com/savewithgas and finding your community page to use the calculator.

ahmed al-amry

Ahmed Al-Amry Supervisor, Community Expansion Enbridge Gas

### Get in touch any time

There are many alternatives to serve your energy needs. To learn more about alternative technologies, such as heat pumps, visit Natural Resources Canada at <u>https://tinyurl.com/y3k2nh8b</u>. If you have questions, please contact one of our Community Expansion Advisors.

#### **Community Expansion Contacts:**

Phone: 1-833-356-2689 Email: ceapplications@enbridge.com



\* Natural gas prices are based on Rate 1 rates in effect as of April 1, 2023 and include the \$0.23 per m3 expansion surcharge. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of Jan. 1, 2023 and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. They include the new Ontario Electricity Rebate (OER). Electric cold climate air source heat pumps are available but not included in the savings calculations. The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Oil price is based on the latest available retail price. Since individual fuel prices vary, savings assumptions may or the as accurate in your situation. Costs have been calculated for all energy types based on the April 1, 2023 rate. The Federal carbon charge is projected to increase annually from 2024 to 2030.

Cost and benefits

## How much can you save each year?

Lower costs, lower emissions, more convenience and peace of mind.



\* Natural gas prices are based on Rate 1 rates in effect as of April 1, 2023 and include the \$0.23 per m3 expansion surcharge. Electricity rates based on Hydro One Distribution rates (Mid-density R1) as of Jan. 1, 2023 and Regulated Price Plan (RPP) customers that are on Time-Of-Use (TOU) pricing. They include the new Ontario Electricity Rebate (OER). Electric cold climate air source heat pumps are available but not included in the savings calculations. The propane price comparison is based on the lowest price obtained in an area survey conducted quarterly. Oil price is based on the latest available retail price. Since individual fuel prices vary, savings assumptions may or may not be as accurate in your situation. Costs have been calculated for the equivalent energy consumed and include all service, delivery and energy charges. The Federal carbon charge is included for all energy types based on the April 1, 2023 rate. The Federal carbon charge is projected to increase annually from 2024 to 2030.

Never worry about running

**Bring home** 

More affordable

all the benefits

dryers, natural gas can make your home more comfortable

#### Lower carbon emissions

Natural gas can help reduce your home's carbon footprint.

#### **Billing and charges**

## Where does your money go?

Here's a helpful explanation of a few key items on your natural gas bill

## Expansion Surcharge

The fairest way to cover the infrastructure costs of expanding natural gas service.

## **Cost Adjustment**

Natural gas rates vary by season—you pay what we pay.

## **Customer Charge**

This is a fixed \$22.88° amount that pays for 24/7 emergency response and other services.

\* Subject to change. Please note that all charges, except the fixed customer charge, vary based on how much natural gas you use.

## Supply, Delivery and Transportation Charges

These cover the costs to buy and deliver natural gas to your home.

## Frequently asked questions

## **Q**: Why do I have to pay an additional charge towards the construction costs of the project?

**A:** For us to extend natural gas to rural areas where the cost of building the infrastructure is more than the revenue it generates, the Ontario Energy Board approved an additional expansion surcharge. This is a variable rate charge, based on your usage, of \$0.23/cubic metre of natural gas used. Since homes use more natural gas in colder months, the surcharge will be higher in winter. It will appear as a separate line item on your monthly bill for up to 40 years. Go to **enbridgegas.com/savewithgas** to get an estimate of your potential fuel savings.

## **Q:** Why is the surcharge in effect for different lengths of time by community?

**A:** The length of time the surcharge remains in effect varies by community because the overall cost to serve each community is different, based on factors such as the distance of the community from an existing natural gas pipeline and more.

# Programs and rebates to help you save

Enbridge Gas offers a suite of conservation programs to help you save energy at home. From moneysaving rebates to discounts and special offers, we're committed to helping you make your home more energy efficient, comfortable and affordable.

## Energy conservation is good for you and your community

Reducing energy use is the simplest, most cost-effective way to keep energy costs affordable for everyone. When you make your home more energy efficient, you also help protect it against the effects of a changing climate and contribute to a cleaner, greener Ontario.

Visit our website at **enbridgegas.com/conservation** to find the right program for you.



I was connected with someone who came to my house and walked through the house with me looking for areas that I could improve on by myself or with professional help. Because of the efforts I've made, it's a lot more comfortable and a lot less cold.

Erica H.
Program participant
Ottawa, Ontario
#### Attachment 2 - Community Engagament Strategies for Community Expansion Projects

Phase	Timelines (Marketing and Market Insights Timelines)	Strategy	Tier 3 Mktg Activities 50 - 150 customers Activity (in order of priority)	Tier 2 Mktg Activities 150 - 500 customer Activity (in order of priority)	Tier 1 Mktg Activities 500 + customers Activity (in order of priority)	Community Engagement Activities Across all tiers
Phase 1 - Market Insights	<ul> <li>2-3 weeks survey prep (hire vendor/supply chain process, update and program questionnaire arrange for fielding)</li> <li>4+ weeks fielding</li> <li>2 weeks data compilation, analysis and high level reporting</li> </ul>	* Survey typically used to forecast customer attachments, therefore survey required before project economics can be finalized * Survey to gather information that supports future marketing efforts, such as demographics, existing fuel and equipment types, housing characteristics, perceptions of natural gas, etc. * Methodology determined based on community characteristics: door-to-door, online, telephone, or a combination.	* Survey	* Survey	* Survey	<ol> <li>Municipality are notified of the survey for awareness 2. Municipality to notify residents through available channels (eg social media, newsletter, etc.)</li> </ol>
Phase 2 - Pre-Construction This includes activities such as * Identify stakeholders * Attachment forecasts * Route selection * Environmental and Archeology work * Development of drawings * Load estimates for customers	Up to 6 months (Tier 1) Up to 3 months (Tier 2) Up to 2 months (Tier 3)	Build awareness about natural gas and uses of natural gas, informing that natural gas is coming to the community and to address any questions as needed.	<ul> <li>Community open house</li> <li>Construction vehicle decals (3rd party vehicles)</li> </ul>	<ul> <li>Community open house*</li> <li>Coundational creative assets - print/digital</li> <li>Construction vehicle decais (3rd party vehicles)</li> </ul>	* Community open house * Foundational creative assets - print/digital * Construction vehicle decals (3rd party vehicles)	* Develop or strengthen relationships with key stakeholders * Media scans * Prepare key messaging to respond to inquiries * Support project team
Phase 3 - Active Construction	Up to 18 months (Tier 1) Up to 12 months (Tier 2) Up to 8 months (Tier 3)	Drive awareness and education on natural gas and the attachment process, address customer questions/concerns. 2. Drive adoption/attachments	Open House     Creative Assets - print, digital, grass roots     newspapers     Construction packages     (attachment team)     Vehicle decals     CE Tool kit leave behind	Open House     ' Open House     ' Creative Assets - print, digital, social, grass     roots/community events     ' Construction packages     ' Community events	Open House     Storefront location     Creative Assets - print, digital, social,     grass roots/community events, radio,     newspapers     Construction packages	* Notice of construction * Internal and external stakeholder communications and events * Support to project team

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-46 Plus Attachment Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from Environmental Defence (ED)

# Interrogatory

# Reference:

EB-2023-0200, Exhibit 1.ED-2, Attachment 1

# Question(s):

- a) In the Sandford Community Expansion (EB-2023-0200) materials, Enbridge personnel sought support from municipalities for leave to amend the leave to construct threshold. Were there any equivalent communications with the municipalities in this case?
- b) Please provide a list of Enbridge's municipal advisors.
- c) Please confirm whether the salary of that municipal/stakeholder staff person is funded by ratepayers or directly by the shareholder.
- d) If this salary is paid by ratepayers, please explain why or whether it is appropriate that ratepayers pay for Enbridge staff to lobby for less OEB oversight.

- a) Enbridge Gas completed outreach to the municipalities it serves to create a dialogue and share information on the Future of Home Heating and Natural Gas Expansion and modernization of the leave-to-construct process for pipeline projects in November 2023. The information shared included at Attachment 1 of this response was issued to municipalities, including the Township of Bonnechere Valley, the Township of North Algona Wilberforce and the Township of Admaston/Bromley.
- b) Enbridge Gas has a municipal advisor for each operating region. The operating regions are:
  - Eastern Region
  - GTA East Region
  - GTA West Region
  - Northern Region

Filed: 2024-01-12 EB-2023-0201 Exhibit I.ED-46 Plus Attachment Page 2 of 2

- Toronto Region
- Southeast Region
- Southwest Region
- c) The salaries of the municipal advisors are funded by ratepayers.
- d) The outreach provided by the municipal advisors was to create a dialogue and ensure the voices of ratepayers and other stakeholders were considered in the design and implementation of the Future of Home Heating and Natural Gas Expansion Program and efforts to modernize the leave-to-construct process for pipeline projects.

From: Anik Benoit On Behalf Of Jean-Benoit Trahan
Sent: Monday, November 13, 2023 12:31 PM
To: jenniferm@eganville.com
Cc: Matthew Wilson <matthew.wilson@enbridge.com>
Subject: Consultation on the future of natural gas expansion and home heating affordability

Greetings Mayor Murphy and Members of Council,

I am writing today to encourage municipalities to have their voices heard by contributing feedback to the consultation on the future of natural gas expansion. Your municipal perspective could help shape the future of the program. The Ministry of Energy's consultation is open until December 15 and you can learn more at: <u>consultation on the future of natural gas expansion and home heating affordability</u>. Attached please find a letter that provides additional information as well as a draft resolution regarding modernization of the current leave-to-construct guidelines.

Please reach out to me or our municipal advisor Matthew Wilson should you have any questions.

With thanks,

Jean-Benoit Trahan, B. econ, MBA

Director, Eastern Region / Directeur, Région de l'est President Gazifère / Président Gazifère

ENBRIDGE GAS INC. / GAZIFÈRE INC. Tel.: 613-748-6810 | Cell.: 613 863-0219 400 Coventry Rd Ottawa, On K1K2C7 enbridge.com Safety. Integrity. Respect. Inclusion. Sécurité. Intégrité. Respect. Inclusion.

#### Filed: 2024-01-12, EB-2023-0201, Exhibit I.ED-46, Attachment 1, Page 2 of 6

From: Anik Benoit On Behalf Of jean-benoit.trahan@enbridge.com
Sent: Monday, November 13, 2023 2:39 PM
To: jbrose@nalgonawil.com
Cc: Matthew Wilson <matthew.wilson@enbridge.com>
Subject: Consultation on the future of natural gas expansion and home heating affordability

Greetings Mayor Brose and Members of Council,

I am writing today to encourage municipalities to have their voices heard by contributing feedback to the consultation on the future of natural gas expansion. Your municipal perspective could help shape the future of the program. The Ministry of Energy's consultation is open until December 15 and you can learn more at: <u>consultation on the future of natural gas expansion and home</u> heating affordability. Attached please find a letter that provides additional information as well as a draft resolution regarding modernization of the current leave-to-construct guidelines.

Please reach out to me or our municipal advisor Matthew Wilson should you have any questions.

With thanks,

#### Jean-Benoit Trahan, B. econ, MBA

Director, Eastern Region / Directeur, Région de l'est President Gazifère / Président Gazifère

ENBRIDGE GAS INC. / GAZIFÈRE INC. Tel:: 613-748-6810 | Cell.: 613 863-0219 400 Coventry Rd Ottawa, On K1K2C7 enbridge.com Safety. Integrity. Respect. Inclusion. Sécurité. Intégrité. Respect. Inclusion. From: Anik Benoit On Behalf Of Jean-Benoit Trahan
Sent: Monday, November 13, 2023 9:57 AM
To: mayordonohue@admastonbromley.com
Cc: Matthew Wilson <matthew.wilson@enbridge.com>
Subject: Consultation on the future of natural gas expansion and home heating affordability

Greetings Mayor Donohue and Members of Council,

I am writing today to encourage municipalities to have their voices heard by contributing feedback to the consultation on the future of natural gas expansion. Your municipal perspective could help shape the future of the program. The Ministry of Energy's consultation is open until December 15 and you can learn more at: <u>consultation on the future of natural gas expansion and home heating affordability</u>. Attached please find a letter that provides additional information as well as a draft resolution regarding modernization of the current leave-to-construct guidelines.

Please reach out to me or to your municipal advisor should you have any questions.

With thanks,

Jean-Benoit Trahan, B. econ, MBA Director, Eastern Region / Directeur, Région de l'est President Gazifère / Président Gazifère

ENBRIDGE GAS INC. / GAZIFÈRE INC. Tel.: 613-748-6810 | Cell.: 613 863-0219 400 Coventry Rd Ottawa, On K1K2C7 enbridge.com Safety. Integrity. Respect. Inclusion. Sécurité. Intégrité. Respect. Inclusion.

# RESOLUTION

# **RESOLUTION NO.**

DATE:

MOVED BY:

# SECONDED BY:

WHEREAS the Enbridge Gas has shared with [municipality name] key messages regarding the Ontario Energy Board's Leave to Construct (LTC) process, entitled "reducing red tape for more cost-effective, timely energy connections in Ontario:"

AND WHEREAS [municipality name] supports and wishes to endorse the recommendations put forward by Enbridge Gas in order to expedite the installation of natural gas to rural, remote or underserved communities such [municipality name];

# NOWTHEREBE IT RESOLVED:

1. THAT the [municipality name] petition the Ontario Government to expedite the implementation of the following recommendations:

i) THAT the Government of Ontario move to modernize the Ontario Energy Board's (OEB) Leave to Construct (LTC) process for smaller pipeline projects in order to bring reliable, affordable energy options to communities, homes and businesses in a more cost-effective and timely manner;

ii) AND THAT the LTC cost threshold be updated from \$2M to \$10M for hydrocarbon lines (by amending Ontario Regulation O.Reg.328/03) while maintaining current requirements and expectations for Indigenous consultation and environmental review for projects greater than \$2M and less than \$10M;

iii) AND THAT these outdated regulations are causing the LTC to apply far more broadly than intended when it was established over 20 years ago due to increased regulatory and cost pressures, as well as inflation, virtually all gas pipeline projects are now greater than \$2M rendering the threshold meaningless;

iv) AND THAT roughly 0.5 KM pipe in urban settings now often exceeds the \$2M threshold;

v) AND THAT modernizing these outdated regulations would reduce delays and costs for economic development initiatives including transit projects, community expansion projects, housing developments, connections for low carbon fuel blending (e.g.,

renewable natural gas, hydrogen) as well as residential and business customer connections;

vi) AND THAT based on OEB's performance standards, this proposal would save approx. 5-7 months of regulatory process which is in addition to the time needed to undertake Indigenous consultation and environmental review and prepare an application to the OEB;

vii) AND THAT the cost of preparing and having a LTC application heard ranges from approx. ~\$50,000 to ~\$200,000, which is passed on to customers;

viii) AND THAT while no cost-based threshold exists for electricity lines, there are a range of exemptions ensuring that LTC is only required for significant electricity projects and the proposed changes would help ensure that, consistent with electricity projects, LTC for hydrocarbon lines would only be required for significant projects;

ix) AND THAT increasing the cost threshold to \$10M would closer align Ontario with other Canadian jurisdictions (e.g., in B.C., these thresholds are \$15M for electricity and \$20M for natural gas);

2. AND THAT this resolution be circulated to the President of AMO, Colin Best, Premier Doug Ford, the Minister of Energy, Todd Smith, The Minister of Finance, Peter Bethlenfalvy and all regional municipalities requesting support of the proposed changes regarding reducing red tape for more cost-effective, timely energy connections in Ontario.

MAYOR



November 10, 2023

Dear Mayor and Members of Council,

#### Re: Consultation on the future of natural gas expansion and home heating affordability

Earlier this year, the Ministry of Energy launched its <u>consultation on the future of natural gas expansion and</u> <u>home heating affordability</u>. The Ministry is specifically seeking input from stakeholders on the future of the program, which will be used to inform next steps to address home heating costs in rural and northern Ontario and Indigenous communities.

I encourage you to have your voices heard by contributing your feedback. Your municipal perspective, interests and priorities could help shape the future of the program. Responses are due by December 15, 2023, and you can learn more about the consultation process on the Ministry's <u>website</u>.

Phase 1 and 2 of Ontario's Natural Gas Expansion Program were oversubscribed with more than 200 projects submitted for funding, indicating the overwhelming demand from municipalities and businesses for access to more cost-effective heating options. The natural gas expansion program can help businesses achieve annual cost savings of up to 30% each year on space and water heating, with homeowners realizing even greater savings. This affordability is vital for Ontario residents and businesses now more than ever.

Enbridge Gas will be contributing to this consultation and leveraging our experience planning and executing the projects that were selected in Phase 1 and Phase 2 of this program.

We continue to advocate for a modernized leave-to-construct application threshold and process for smaller pipeline projects to bring reliable affordable energy options to communities, homes, and businesses in a more cost-effective and timely manner – and to promote economic development and job creation across the province. I invite you to reach out to your local MPP, the Ministry of Energy and the Ontario Energy Board and add your support to this discussion. Attached to this correspondence is a draft resolution for your consideration.

While our work to expand access to natural gas continues so does our commitment to bringing alternative <u>energy solutions and fuels</u>, such as renewable natural gas, hydrogen blending and energy conservation programs, as pathways to lower-cost, clean and reliable energy options for Ontarians. Enbridge Gas has been meeting Ontario's energy needs for more than 175 years; our customers rely on us to deliver clean, reliable, and cost-effective natural gas, and we are proud to deliver on this commitment.

Thank you for your consideration. Please do not hesitate to contact me, or your municipal advisor, if you have any questions or would like to discuss these topics further.

Sincerely,

Jean-Benoit Trahan Director, Operations, Eastern Region Enbridge Gas Inc Jean-Benoit.Trahan@enbridge.com

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-1 Page 1 of 3

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Question(s):

Enbridge has requested several changes/exemptions under Municipal Franchises Act [A/2/1]

- a) Please explain what the impacts will be if the OEB does not approve each of the changes/exemptions requested by Enbridge.
- b) Please explain why the OEB should approve an exemption of required assent from the municipal electors of the Township of Bonnechere Valley, rather than require municipal assent.
- c) Please confirm that the municipal electors of the Township of Bonnechere Valley have been notified that Enbridge is requesting an exemption, i.e. that their assent is not necessary for the proposed franchise agreement by-law under the circumstances. Please provide a copy of the notification provided.
- d) Please explain why the OEB should approve an exemption of required assent from the municipal electors of the Township of North Algona Wilberforce, rather than require municipal assent.
- e) Please confirm that the municipal electors of the Township of North Algona Wilberforce have been notified that Enbridge is requesting an exemption, i.e. that their assent is not necessary for the proposed franchise agreement by-law under the circumstances. Please provide a copy of the notification provided.

#### Response:

a) With respect to the *Municipal Franchises Act*, Enbridge Gas has requested approval of franchise agreements with and Certificates of Public Convenience and Necessity for the Township of Bonnechere Valley and the Township of North Algona Wilberforce. Without approval of these instruments, Enbridge Gas will not have the right to construct or operate the proposed facilities in order to fulfill obligations under the Natural Gas Expansion Program.

Enbridge Gas has also requested Orders directing and declaring that the assent of the municipal electors of the Township of Bonnechere Valley and the Township of North Algona Wilberforce to the by-laws authorizing the proposed franchise agreements is not necessary. Without waiving that requirement under the *Municipal Franchises Act*, Enbridge Gas assumes that the municipalities would need to undertake a plebiscite or something similar to allow municipal electors to vote on whether there is a need to acquire municipal electors assent or perhaps a vote on whether to accept the proposed franchise agreement. Enbridge Gas is not aware of any such plebiscite having ever taken place with respect to a franchise agreement for natural gas service.

#### b and d)

The required "assent" refers to Section 3 of the *Municipal Franchises Act* which provides that a municipal bylaw granting, extending or renewing a right to construct or operate a public utility (i.e., a franchise agreement) must set forth the terms and conditions upon which and the period for which such right is to be granted, and that the bylaw must receive the assent of the electors:

3. (1) A municipal corporation shall not grant to any person nor shall any person acquire the right to use or occupy any of the highways of the municipality for a public utility or to construct or operate any part of a public utility in the municipality unless a by-law setting forth the terms and conditions upon which and the period for which such right is to be granted or acquired has been assented to by the municipal electors.

As noted above, if the OEB does not exercise its jurisdiction under Section 9(4) of the *Municipal Franchises Act* to approve the franchise agreement without having to go to the municipal electors for their assent, Enbridge Gas assumes that the municipalities would need to undertake a plebiscite or something similar to allow municipal electors to vote on whether there is a need to acquire municipal electors assent or perhaps a vote on whether to accept the proposed franchise agreement.

Assent voting (or referendum) allows electors to vote on whether a proposal would move forward or not. Assent of the electors is obtained if a majority of the votes counted are in favour of the bylaw or question. Enbridge Gas assumes that assent voting would be conducted under the rules that generally apply to local elections. This referendum or plebiscite process could take several months and would inevitably delay approval of the franchise agreement and the construction of the proposed facilities. By granting an Order to waive the assent requirement, the OEB is determining that the municipal council acts on behalf of the municipal electors to make decisions such as with respect to the franchise agreement.

As noted above, Enbridge Gas is not aware of any such plebiscite having ever taken place with respect to a franchise agreement for natural gas service. Issuing an Order

waiving the assent requirement would be consistent with all Decision and Orders that have been issued by the OEB related to all 300+ existing franchise agreements held by Enbridge Gas.

- c) Discussions held with municipal council and administration included the requirement to waive the need for the assent of municipal electors. The Resolution passed on January 19, 2022, by council of the Township of Bonnechere Valley was posted publicly in advance of the associated council meeting so Enbridge Gas assumes that this ensured that municipal electors were notified of the requested exemption.
- e) Discussions held with municipal council and administration included the requirement to waive the need for municipal electors' assent. Resolution #2022-09-20-344 passed on September 20, 2022, by council of the Township of North Algona Wilberforce was posted publicly in advance of the associated council meeting so Enbridge Gas assumes that this ensured that municipal electors were notified of the requested exemption.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-2 Plus Attachments Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

# Question(s):

- a) Please super-impose the proposed pipeline from Exhibit A, Tab 2, Schedule 1, Attachment 1 onto the Heat Map (per STAFF-2 IR request), or vice versa. This will illustrate how the Heat map correlates to the proposed Project.
- b) Please plot the location of the proposed 656 residential and 67 commercial customers (please use a different colour/market to differentiate between residential and commercial customers) on the proposed pipeline map from Exhibit A, Tab 2, Schedule 1, Attachment 1.

- a) Please see Attachments 1 and 2 to this response.
- b) Enbridge Gas cannot plot the locations of the forecasted customers as the forecast is based on a percentage of the total potential customers. The exact locations of the 656 residential and 67 commercial customers referenced in the interrogatory are not known at this time.



#### Legend

	Proposed Expansion Corridor
	Proposed Tie-In to Existing Pipeline
	Proposed Eganville Route
	Existing Enbridge Gas Pipelines
	Roads
	Railways
	Township of Bonnechere Valley
	Municipal and Township Boundaries
	Wooded Areas
	First Nation Boundaries
Low	Proposed Customer Density High

#### Township of Bonnechere Valley (Eganville Community Expansion Proposal Project)



Disclaimer: The map is provided with no warranty express or Implied and is subject to change at any time. Any Person using the Density Map shall do so at its own Risk and the Density Map is not intended in any way As a tool to locate underground infrastructure for the purposes of excavation









#### Legend Township of North Algona Wilberforce (Eganville Community Expansion Proposal Project) Proposed Expansion Corridor Proposed Tie-In to Existing Pipeline Proposed Eganville Route Existing Enbridge Gas Pipelines Township of North Algona Wilberforce Ottawa Disclaimer: Roads The map is provided with no warranty express or Railways Implied and is subject to change at any time. Any Person using the Density Map shall do so at its own Municipal and Township Boundaries Risk and the Density Map is not intended in any way As a tool to locate underground infrastructure for the Wooded Areas purposes of excavation First Nation Boundaries ÉNBRIDGE® Proposed Customer Density High LOW Location map

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-3 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1, Attachment 6, Forum Research Survey

# Question(s):

The survey response rate was 195/934 or approximately 21%. Please explain why the survey response rate was so low for this project.

#### Response:

The survey was closed when attempts to gather more responses became unproductive, leading to the acceptance of the 195 survey completions. Please see the response to Exhibit I.STAFF-6 part b) for more details.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-4 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

# Question(s):

- a) Please explain the difference between the Enbridge in-person surveys of potential commercial/industrial customers and the Forum survey of potential customers. Are they duplicative activities?
- b) Please explain how the results from the commercial/industrial customer surveys compared to the information from the Forum Research Surveys.

# Response:

# a - b)

A different category of building was approached for each of the two methods. Residential homes were the focus of the Forum survey and larger commercial and industrial properties were approached by Enbridge Gas directly. They were not duplicative activities, and the results are not comparable.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-5 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

# Question(s):

- a) What excess capacity is available from the Project to service additional customers in the future beyond the 723 forecasted, if any?
- b) Are the Ancillary Facilities only for the purpose to serve the 723 customers identified? If not please explain how many of the 723 customers would be served and what other customers would be served from the Ancillary Facilities now or in the future.

- a) Please see the response at Exhibit I.ED-5 part a).
- b) The Project is designed to support 100% capture rate, which is equal to 893 customers. Please see the response at Exhibit I.PP-6. Approximately 94 customers are on the Supply Lateral, and 799 served from the Ancillary Facilities.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-6 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Question(s):

- a) Please confirm how many of the 723 surveys [Forum Research Survey] conducted are customers along the proposed route and how many would not have gas access based on the route proposed in the application.
- b) If 100% of potential customers in the community (e.g. along the proposed Project) attached to it, what number of customers would that represent? (please provide the breakdown by residential, commercial and industrial if available).
- c) How many firm confirmation requests have been received from potential customers (please provide numbers by customer type, e.g. residential, commercial, etc.)?

# Response:

- a) Forum Research collected a total of 195 survey responses in Eganville. The survey was conducted within the Project area only. Therefore, all survey responses are from properties that would have access to natural gas based on the route proposed in the Application.
- b) If 100% of potential customers in the community attach there would be 893 customers in total. See Table 1 for a breakdown by sector.

Line		Total
No.	Eganville Customer Additions	Potential
1	Residential Units (Singles)	683
2	Residential Multi-Units (Semis, Towns, Apartments)	120
3	Commercial Units	90
4	Industrial Units	0
5	Total	893

Table 1

Breakdown of Potential Customers

c) None. Customer outreach and engagement to solicit gas applications will commence in 2024.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-7 Page 1 of 1

# @ENBRIDGE GAS INC.

Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# <u>Question(s)</u>:

Please provide a copy of the information and materials provided to consumers about both the costs and benefits of switching to an air source heat pump, as an alternative to natural gas.

#### Response:

Please see response at Exhibit I.ED-9 part a).

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-8 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Question(s):

The proposed Project was reviewed and approved by the Government of Ontario for granting funding under Phase 2 of the NGEP.

- a) Please provide a copy of the approvals from the Government of Ontario and the OEB for this Project, and please highlight the specific approvals and scope related to this Project.
- b) If the number of customers proposed or Project costs vary from what was submitted to the NGEP, please explain the difference.
- c) Please provide what cost estimate was in Enbridge's NGEP application related to Ancillary Facilities and what elements those included.
- d) Please confirm that NGEP approval for access to grant funding does not automatically provide Leave to Construct (or other required regulatory) approvals related to this Project.

- a) For the approval related to this Project from the Government of Ontario please see Schedule 2, Item 9, O.Reg. 24/19 Expansion of Natural Gas Distribution Systems.<sup>1</sup> The approval does not reference Project scope; however, the Project's NGEP proposal includes Project scope information (please see Attachment 1 to response at Exhibit I.STAFF-3 for the Project's NGEP proposal).
- b) Please see response at Exhibit I.STAFF-5 part e).
- c) Please see Table 1 in the response at Exhibit I.STAFF-7.
- d) Confirmed.

<sup>&</sup>lt;sup>1</sup> <u>https://www.ontario.ca/laws/regulation/190024</u>

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-9 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Reference:

PollutionProbe\_IR\_AppendixA\_EnbridgeIncentives\_20231031

# Question(s):

- a) Please confirm that an OEB approved incentive is available in this community of \$6500 for installation a complete new or replacement variable capacity cold climate air source heat pump (ccASHP) system, intended to service the entire home. If incorrect, please indicate the incentive and reference.
- b) Please indicate how many consumers in the proposed expansion project community were provided with information on the incentives available per noted above. Please provide a copy of the materials provided.
- c) Please confirm that the DSM & Greener Homes Incentives are available to current or new natural gas customers. If not correct, please clarify.

# Response:

a) The OEB-approved incentive from Enbridge Gas for the installation of a complete new or replacement variable capacity cold climate air source heat pump (ccASHP) system, intended to service the entire home under the Home Efficiency Rebate Plus program, is \$1,500. The total available incentive is \$6,500 which is made up of the above noted OEB-approved incentive and a \$5,000 incentive from NRCan.

In addition, based on the Company's current understanding, as of November 10, 2023, NRCan is halting the intake into the Canada Greener Homes program in Q1 2024; however all consumers who have entered the program before this date and complete their participation within the program rules by Q1 2027 are expected to be paid the rebates currently available from Canada Greener Homes. The Contribution Agreement with Enbridge Gas and NRCan remains in effect for the full term.

- b) Consumers in the Project area were not provided with information about these incentives. Please see Exhibit I.ED.9, response b), (i)-(iii) for more information.
- c) Confirmed.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-10 Page 1 of 1

# ENBRIDGE GAS INC.

Answer to Interrogatory from <u>Pollution Probe (PP)</u>

Interrogatory

<u>Question(s)</u>:

Please confirm that Enbridge uses an average gas furnace life of 18 years as the best available assumption for its DSM Program. If a more recent (OEB approved) average life value is available, please provide the source.

Response:

Confirmed.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-11 Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

Reference:

# PollutionProbe\_IR\_AppendixB\_CanmetReport [per EB-2022-0200 Exhibit J11.5]



Figure 1: Energy Savings (percentage) for a ccASHP compared to natural gas, oil and baseboard electric.

# Question(s):

The CanmetENERGY cold-climate air source heat pump (ccASHP) Report shows a ccASHP is 50% to 70% more efficient than natural gas, oil or resistance (i.e. baseboard) electric.

- a) Please indicate whether this information for ccASHPs was shared with potential customers as part of the information related to heat pumps. If it was, please provide a copy of the information/materials provided to consumers.
- b) This information was provided in EB-2022-0200 based on a 2022 Study. If Enbridge has a more recent/relevant study/information that provides a different savings rate for ccASHPs vs. natural gas, oil or electric resistance heating, please provide a copy.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-11 Page 2 of 2

- a) This information was not shared with potential customers.
- b) Please see response at Exhibit I.ED-28 part a) for Enbridge Gas's information regarding annual operational costs and ranges of possible up-front capital costs for high-efficiency electric cold climate air source heat pump configurations compared to natural gas furnace configurations.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-12 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Reference:

PollutionProbe\_IR\_AppendixC\_ASHPCalculator.

# Question(s):

The EB-2022-0200 online air source heat pump calculator compares annual heating costs compared to natural gas. If Enbridge has a better source and values it believes is more accurate, please provide a copy.

#### Response:

Enbridge Gas is not aware of the accuracy of the information appended to the interrogatory by PP and is not relying on it with respect to the Company's Application, and therefore, cannot comment on its accuracy.

Please see response at Exhibit I.ED-28 part a) for Enbridge Gas's information regarding annual operational costs for high-efficiency electric cold climate air source heat pump configurations compared to natural gas furnace configurations.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-13 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

# Reference:

PollutionProbe\_IR\_AppendixD\_HeatPumpConversionGuidehouse per EB-2022-0200. Enbridge's Guidehouse Pathways to Net Zero Emissions for Ontario Study (P2NZ).

# Question(s):

Guidehouse indicated that 40% to 85% of Ontario households are expected to switch to a heat pump by 2050. If Enbridge has more current information or reports, please provide a copy.

# Response:

The referenced information is from the Pathways to Net Zero Emissions for Ontario Study (P2NZ), which was not designed or intended to be interpreted as a forecast or prediction. The objective of the P2NZ Study was to create and present possible scenarios relating to how Ontario's energy system could support the achievement of net zero emissions in Ontario by 2050.

Enbridge Gas submits that provincial-level scenario analyses regarding the year 2050 are not relevant to the Company's Application. Enbridge Gas's natural gas attachment forecast for the Project area relies on the energy interests expressed by actual residents and business-owners within the Project area.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-14 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Question(s):

- a) Schedule A, Tab 2, Schedule 1, Page 2 indicates that Enbridge is only requesting approval for the Phase 1 and Phase 2 pipelines, but Schedule B, Tab 1, Schedule 1 Page 1 defines the "Project" as including Phase 1 and Phase 2 pipelines, plus Ancillary Facilities. Please explain why Enbridge is not requesting OEB approval for the full "Project", including Ancillary Facilities.
- b) Please explain why the NPS 6, 4 & 2 distribution pipelines are considered Ancillary Facilities for this Project, when similar distribution mains have been included as primary pipeline assets for other NGEP projects (i.e. similar NGEP Leave to Construct applications).

- a) The Ancillary Facilities described in Schedule B, Tab 1, Schedule 1, page 1 do not trigger the need for leave to construct approval as defined in Section 90(1) of the OEB Act.
- b) Consistent with the approach in the Bobcaygeon Community Expansion Project,<sup>1</sup> the assets which Enbridge Gas seeks leave to construct for in larger, more complex communities include the Supply Lateral from the existing Enbridge Gas system to the community. All distribution assets required to deliver natural gas from the Supply Lateral to customers within the Project area are included as Ancillary Facilities in the economics of the Project due to the greater level of design uncertainty at this stage of the project. Environmental and consultation activities are conducted for the Ancillary Facilities.

<sup>&</sup>lt;sup>1</sup> EB-2022-0111, Exhibit B, Tab 1, Schedule 1, pp. 2-3, para. 2 (iii).

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-15 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

# Question(s):

Please confirm that the residential fixed bill estimate for customers is approximately \$45 per month or \$564 per year. If incorrect, please provide an updated estimate and reference.

#### Response:

Not confirmed. The fixed bill estimate for customers is approximately \$45 per month, however, the per year total should be approximately \$550 consistent with EB-2022-0200.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> EB-2022-0200, Exhibit 8, Tab 2, Schedule 9, Attachment, 10, p. 1, line 1, column (c).

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-16 Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Reference:

Exhibit B, Tab 1, Schedule 1 - Figure 1: Annual Energy Costs & Savings Versus Natural Gas, Including SES

# Question(s):

- a) Please confirm that the options provided in Figure 1 are meant to represent common fuels used historically in comparison to natural gas and not the current options for consumers in the community. If not correct, please explain.
- b) Please confirm that the values in Figure 1 relate to fuel only and do not include incremental equipment costs to retrofit a home or business with natural gas.
- c) Please confirm that the values in Figure 1 only include costs and savings related to heat and exclude costs/savings for cooling.
- d) Please confirm that the values in Figure 1 related to electricity are for electric resistance (e.g. baseboard) heating only. If that is not correct, please state the assumptions and provide the calculation.

- a) Figure 1 provides information regarding conversions from electricity (resistance heating), oil, and propane to natural gas. Figure 1 does not provide information regarding conversions to non-natural gas energy solutions, which Enbridge Gas has no ability to cause consumers to convert to via the Application. Please see response at Exhibit I.ED-1 parts a) b) for more information.
- b) Confirmed.
- c) The values in Figure 1 are based on the energy-equivalent of annual natural gas consumption of 2,400 m<sup>3</sup>/yr, which does not include cooling. The values in Figure 1 reflect whole-home heating scenarios (which includes space heating and water heating). Please see response at Exhibit I.ED-1 part c) d) for the calculations and assumptions used to calculate Figure 1.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-16 Page 2 of 2

d) Confirmed. Please see response at Exhibit I.ED-1 part c) - d) for the calculations and assumptions used to calculate Figure 1.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-17 Page 1 of 1

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1, Page 5, including Figure 1.

# Question(s):

- a) Please explain what effort, research and/or analysis Enbridge undertook (if any) to identify the annual costs related to heat pumps or wood, for Table 1.
- b) Please recalculate Table 1 including best available information for wood and using best available information for a cold-climate air source heat pump as a proxy for heat pumps. Please provide reference sources for the information used.
- c) Please confirm that the information in Table 1 does not include any benefit calculations related to cooling (i.e. heating only)

- a) For Enbridge Gas's analysis regarding the annual operating cost of cold-climate air source heat pumps, please see Exhibit I.ED-28. Enbridge Gas has not completed any recent analysis related to annual costs for wood heating.
- b) Enbridge Gas respectfully declines to recalculate Table 1 as requested. As indicated in response to part a) above and in the footnote to Table 1, the Company does not have recent information for wood heating. Similarly, costs and savings information for ccASHP are not provided in Table 1 for reasons explained in the footnote to Table 1, and for additional reasons as described in the response to Exhibit I.ED-1.
- c) The values in Table 1 are based on the energy-equivalent of annual natural gas consumption of 2,400 m<sup>3</sup>/yr, which does not include cooling.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-18 Page 1 of 1

# ENBRIDGE GAS INC.

Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

Reference:

Question(s):

Please provide a copy of the all materials used for public consultation including those used for the Open House.

# Response:

Public consultation materials used during the Environmental Assessment (including those used for the Information Session) can be found within Appendix B of the Environmental Report at Exhibit F, Tab 1, Schedule 1, Attachment 1.

A copy of the Market Research survey administered to residents in the Project Area and the communication letter regarding the survey are provided at Exhibit I.ED-7, Attachment 3 and Exhibit I.ED-7, Attachment 2, respectively.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-19 Plus Attachment Page 1 of 2

# ENBRIDGE GAS INC.

# Answer to Interrogatory from <u>Pollution Probe (PP)</u>

# Interrogatory

# Question(s):

- a) Please provide a copy of all marketing and communication material provided by Enbridge or partners to consumers/businesses in the community to promote DSM or other energy efficiency opportunities when considering replacement of (water/space) heating systems or related energy efficiency measures.
- b) Please provide a copy of all communication material provided by Enbridge or partners to educate consumers/businesses 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 that Enbridge Gas is delivering the Greener Homes Grant program in the area impacted by the proposed project.
- e) Has Enbridge conducted analysis on consumers along the proposed pipeline 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 – b)

The Company has not directly marketed DSM or other energy efficiency opportunities to potential customers 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:

- <u>https://www.enbridgegas.com/residential/rebates-energy-conservation</u>
- <u>https://www.enbridgegas.com/business-industrial/incentives-conservation</u>

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- c) Please see Attachment 1 to this response.
- d) Confirmed. The 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. Please note that as communicated November 10, 2023, NRCan is halting the intake into the Canada Greener Homes program in Q1 2024. All consumers who have entered the program before this cut-off date and complete their participation within the program rules by Q1 2027 are expected to be paid the rebates currently available from Canada Greener Homes. The Contribution Agreement with Enbridge Gas and NRCan remains in effect for the full term.

e) 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 \$2		\$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	NRCan	EGI Proposed Enhanced	OEB-Approved Measures	OEB- Approved	Total Enhanced Incentive
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Canada Greener Homes Grant Measures	Incentive	Incentive		Incentives for EGI	(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	NDO	an EGI Proposed Enhanced Incentive OEB-Approved Measures		OEB-	Total Enhanced
Canada Greener Homes Grant Measures	Incentive			Approved Incentives for EGI	(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

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-20 Page 1 of 1

# ENBRIDGE GAS INC.

Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

Reference:

Question(s):

Is this proposed Project included in the most current Enbridge Asset Management Plan (AMP) or Utility System Plan (USP)? If not, why not. If yes, please provide the references and documents (or links).

### Response:

Community Expansion (CE) projects are categorized under the System Access category of projects and are included in the USP budget totals.<sup>1</sup> All regulated utility projects are included in the USP.

The 2023 to 2032 AMP includes commentary on CE projects generally. Further, the proposed Project is included on the map displaying approved project locations.<sup>2</sup> However, as stated in the 2023 to 2032 AMP, specific CE project details and capital expenses are excluded from the AMP as they are not subject to optimization and follow separate project funding criteria.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> EB-2022-0200, Exhibit 2, Tab 6, Schedule 1, p. 53.

<sup>&</sup>lt;sup>2</sup> EB-2022-0200, Exhibit 2, Tab 6, Schedule 2, p. 70, Figure 5.1-6.

<sup>&</sup>lt;sup>3</sup> EB-2022-0200, Exhibit 2, Tab 6, Schedule 2, p. 73.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-21 Page 1 of 1

# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

### Question(s):

Has Enbridge conducted a risk assessment on the probability that the proposed pipeline 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:

No. 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. The Project's natural gas attachment forecast is based on the energy interests expressed by actual residents and business owners within the Project area.

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# ENBRIDGE GAS INC.

Answer to Interrogatory from <u>Pollution Probe (PP)</u>

Interrogatory

Reference:

<u>Question(s)</u>:

Please confirm that Enbridge has not received approval (from the OEB, TSSA or other relevant regulators) 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.

Response:

Confirmed.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-23 Page 1 of 2

# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

### Question(s):

- a) Please confirm the amortization period Enbridge intends to apply to the Pipeline and Ancillary Facilities.
- b) Please explain how any residual (unamortized) costs would be recovered from rate payers if the proposed pipeline becomes stranded (i.e. not used and useful) before it is fully depreciated.
- c) Enbridge is aware that the OEB could decrease the amortization period for new capital assets starting in 2024 and Enbridge has proposed a 30 year value (per Enbridge EB-2022-0200 Reply Argument). Please indicate what the impact would be to this project if the OEB applies:
  - A 30 year amortization period
  - A 15 year amortization period.
- d) Please provide the impact (net NPV and Portfolio Index) if a Revenue Horizon of 30 years was used instead of 40 years.

#### Response:

Enbridge Gas interprets the term "amortization period" used within the interrogatory as "revenue horizon".

- a) Confirmed. A 40-year revenue horizon has been applied for this Project including the Pipeline and Ancillary Facilities.
- b) Enbridge Gas has no basis to believe that the proposed facilities will become stranded assets. From an accounting and regulatory perspective, Enbridge Gas applies group depreciation procedures to plant assets, including gas meters and distribution service lines. If the assets are retired before their expected average service life is reached (as reflected for the group), the implied loss is captured in accumulated depreciation. The loss would be reflected in subsequent depreciation studies and recovered through depreciation expense over the remaining life of the assets left within the group.

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c) The amortization periods in the question posed by PP are not applicable as the OEB has confirmed that there should be no change to the 40 year revenue horizon for this Project and other Phase 2 NGEP projects:

The OEB agrees with the submissions by Enbridge Gas and OEB staff that the new revenue horizon should not apply to the projects in the current phase of the NGEP under O. Reg. 24/19.<sup>1</sup>

d) The Project requires funding assistance as part of Phase 2 of the Government of Ontario's Natural Gas Expansion Program as well as a System Expansion Surcharge (SES) for 40 years from the Project customers. The Project NPV would be negative, the profitability index (PI) would be below 1.0, the Project would not be feasible and would not proceed if the revenue horizon is reduced to a period less than 40 years.

<sup>&</sup>lt;sup>1</sup> EB-2022-0200, Decision and Order, December 21, 2023, p. 42

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-24 Page 1 of 1

# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

### <u>Question(s)</u>:

Please confirm that Enbridge will fund this project from its capital envelope for 2025 if approved by the OEB. If that is not correct, please clarify.

### Response:

Confirmed. Enbridge Gas has included the original forecasted capital costs and revenues in its 2024 Rate Rebasing application.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-25 Page 1 of 1

# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

### Question(s):

Enbridge indicates that the System Expansion Surcharge ("SES") to all new customers taking gas distribution service from the Project will be a fixed volumetric rate of \$0.23 per cubic metre of gas to be charged in addition to Enbridge Gas's base distribution rates as approved by the OEB. The SES is proposed to be charged to all customers taking gas distribution service from the Project for a term of 40 years. Please indicate the SES impact if the Revenue Horizon period the OEB approves is less than 40 years (e.g. 30 years).

#### Response:

Please see the response at Exhibit I.PP-23 part c).

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## ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

Reference:

Exhibit E, Tab 1, Schedule 1, Attachment 1.

### Question(s):

Enbridge indicates that the Project only reaches a PI=0.99. Please explain how the Project is able to proceed with a PI of less than 1.0.

### Response:

As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. As per the evidence update, the PI is 1.0.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-27 Page 1 of 2

# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

## Question(s):

Below is a summary of costs due to the Project and consumers attaching to the Project. If any values are not correct or missing, please provide an updated value and reference.

Item	Estimated Cost
Project Initial Capital Cost <sup>1</sup> <ul> <li>(1) Proposed Pipeline Phase 1</li> <li>(1) Proposed Pipeline Phase 2</li> <li>(2) Ancillary Facilities</li> </ul> Total	\$ 7,049,600 \$ 5,658,561 <u>\$ 22,893,157</u> \$ 35,601,318
NPV of O&M Cost (gas) per customer <sup>2</sup>	\$2,254,000
NPV of other expenses per customer <sup>3</sup>	\$11,062,000
Average Cost of a Residential Customer <sup>4</sup> (service, meter, O/Hs, etc.) <sup>5</sup>	\$5,991

### Response:

The NPV of O&M Cost (gas) per customer of \$2,254,000 is incorrect. As per Attachment 2 to Exhibit E, Tab 1, Schedule 1, this figure represents the total O&M expenditure over a 40 year revenue horizon. The correct NPV of O&M cost per customer is \$1,195. This figure has been calculated by Enbridge Gas for the purpose of this response and included in Table 1 below.

The NPV of other expenses per customer of \$11,062,000 is incorrect. As per Attachment 2 to Exhibit E, Tab 1, Schedule 1, this figure represents the total municipal and income tax over a 40 year revenue horizon. The correct NPV of other expenses per customer is \$5,825. This figure has been calculated by Enbridge Gas for the purpose of this response and included in Table 1.

<sup>&</sup>lt;sup>1</sup> Exhibit E, Tab1, Schedule1, Table 1.

<sup>&</sup>lt;sup>2</sup> Exhibit E, Tab 1, Schedule 1, Attachment 2.

<sup>&</sup>lt;sup>3</sup> \$4,365,000 + \$6,697,000 = \$11,062,000 per Exhibit E, Tab 1, Schedule 1, Attachment 2.

<sup>&</sup>lt;sup>4</sup> EB-2022-0200, Exhibit J13.8.

<sup>&</sup>lt;sup>5</sup> Cost for industrial/commercial would be higher, but residential used to estimate lower end of the range.

The average cost of a residential customer of \$5,991 is not Project-specific. As per the response at Exhibit I.ED-23, part a), the average all-in service cost for a customer for the Project is \$9,925.

As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. Table 1 has been updated to reflect the evidence update.

Item	Estimated Cost		
Project Initial Capital Cost • (1) Proposed Pipeline Phase 1 • (1) Proposed Pipeline Phase 2 • (2) Ancillary Facilities	\$ 7,049,599 \$ 5,658,561 <u>\$ 22,801,462</u>		
Total	\$ 35,509,622		
NPV of O&M Cost (gas) per customer	\$1,195		
NPV of other expenses per customer	\$5,825		
Average Cost of a Residential Customer (service, meter, O/Hs, etc.)	\$9,925		

## Table 1 PP Interrogatory Table Updated

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# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

## Preamble:

PollutionProbe\_IR\_AppendixE\_ExpansionProjectPI

## Question(s):

Recent Enbridge Community Expansion Projects have shown a trend of decreasing Portfolio Index (PI) and a lower actual PI than forecasted in the OEB Leave to Construct proceedings. This has also caused the Project Portfolio to dip below the OEB required PI=1.0.

Please indicate how the proposed Project compares to other recent community expansion projects and what mitigation has been put in place to reduce the risks that this Project to result in an actual PI less than 1.0.

## Response:

For the Eganville Community Expansion Project, Enbridge Gas conducted third-party market research to assess consumer interest in converting to natural gas and has completed site assessments to validate load and revenue assumptions. Enbridge Gas has no reason to believe that the PI for the Project will be less than 1.0 as indicated in the response at Exhibit I.PP-26.

Comparing "trends" from other projects to the proposed project is inappropriate and irrelevant, as each project has unique characteristics and economics. Enbridge Gas will report on the actual capital costs, actual customer attachments, and final project PI through future rebasing applications, following completion of the 10-year rate stabilization period(s) (RSP) and attachment forecast term associated with each community expansion project, in accordance with the OEB's determinations in prior applications, including the Company's SES/TCS/HAF Application.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> EB-2020-0094.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-29 Page 1 of 2

## ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

#### Interrogatory

### Question(s):

- a) The Project costs related to the Ancillary Facilities are approximately \$22.9 million. Please provide a breakdown of those costs by major element.
- b) Please provide all benchmark projects actuals that were used to validate the reasonableness of each of the major Ancillary Facility unit cost estimate.

### Response:

a) As noted in the cover letter to Enbridge Gas's evidence update filed January 12, 2024, the economic analysis for the Project has been updated from Enbridge Gas's pre-filed evidence at Exhibit E, Tab 1, Schedule 1. Please see Table 1, which is consistent with the evidence update, for a breakdown of costs associated with major Ancillary Facilities elements.

Item No.	Description	Station	Distribution Mains	Customer Services	Total
1.0	Material	222,374	323,332	210,070	755,777
2.0	Labour and Construction	123,758	11,085,236	4,704,159	15,913,154
3.0	Outside Services	0	2,199,416	1,202,226	3,401,641
4.0	Land, Permits, Approvals and Consultations	0	8,361	90,652	99,013
5.0	Direct Overheads	0	200,800	66,135	266,934
6.0	Contingency	36,862	1,281,288	508,523	1,826,673
7.0	Sub-Total	382,994	15,098,433	6,873,460	22,263,193
8.0	Interest During Construction	3,198	535,071	0	538,269
9.0	Total Costs	386,192	15,633,504	6,781,765,	22,801,462

# <u>Table 1</u>

#### Ancillary Facilities Cost Breakdown

b) The cost of the Ancillary Facilities was developed using project specific quotes from the applicable contractors. Benchmarking is not used at this cost estimating stage.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-30 Page 1 of 1

# ENBRIDGE GAS INC.

Answer to Interrogatory from <u>Pollution Probe (PP)</u>

Interrogatory

Reference:

Project Schedule (D/2/1)

Question(s):

Phase 2 is proposed to be constructed during the winter 2024/25. Please provide the amount included in the Project estimate related to winter construction (premium) rates.

#### Response:

Construction during the winter months is dependent on several conditions (for example, weather). Winter work is currently not planned for this Project; therefore, no amount is included in the Project estimate for winter construction (premium) rates.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-31 Page 1 of 2

# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

### Reference:

The Environmental Report (F1//1, Attachment 1) identifies areas of bedrock along the proposed route, including areas of bedrock outcrops above-ground.

### <u>Question(s)</u>:

- a) Please provide details on the assessment of bedrock along the proposed pipeline route.
- b) What portion of the total length of the proposed pipeline does Enbridge expect to encounter bedrock (meters or % of total length). Please provide the basis for this estimation.
- c) Has Enbridge received a contractor cost estimate for the length and method (e.g. blasting) of rock excavation along the proposed route? If yes, please provide a copy. If no, what is the project cost estimate related to rock excavation based on?
- d) There are (10+14) 24 watercourses identified along the proposed project and directional drill is the preferred crossing method. Has Enbridge assessed whether there is bedrock below these watercourses?
- e) If bedrock is encountered at the water course crossings, what alternate crossing method and related approvals will be required?

### Response:

- a) An assessment of bedrock within the Study Area was completed and is included within Section 4.3 of the Environmental Report<sup>1</sup>.
- b) Test digs were completed at standard depths by the Contractor to determine bedrock percentage within the Project area. Based on the results from the test digs, approximately 15% bedrock is expected along the proposed pipeline route.

<sup>&</sup>lt;sup>1</sup> Exhibit F, Tab 1, Schedule 1, Attachment 1.

- c) Given the field validated site conditions, Enbridge Gas and the Construction Contractor plan to use a hoe ram as the primary method to remove the bedrock. Enbridge Gas has not received cost estimate details broken down in the manner requested by PP. Rather, based on field data and pipeline design drawings, the Company's cost for installation has been increased to account for the hoe ram, lower production levels, removal of rock and the suitable replacement material. As stated in the response to part b) above, 15% of the Project area is expected to encounter bedrock. Therefore, an increased cost has been forecasted for 15% of the construction work to account for the presence of bedrock.
- d) Enbridge Gas has conducted geotechnical investigations at watercourse crossings within the Project area. The geotechnical investigations concluded that bedrock is present at some of the crossing locations.
- e) Currently, bedrock is not a concern with respect to Horizontal Directional Drilling (HDD) at watercourse crossings. Should the crossing be unsuccessful by HDD, Enbridge Gas will engage with regulatory authorities to determine an appropriate contingency crossing method.

Filed: 2024-01-12 EB-2023-0201 Exhibit I.PP-32 Page 1 of 1

# ENBRIDGE GAS INC.

## Answer to Interrogatory from <u>Pollution Probe (PP)</u>

### Interrogatory

### Reference:

The Environmental Report (F1//1, Attachment 1) identifies 459 water wells with some drilled in exposed bedrock.

### Question(s):

- a) How many water well are located within 100 meters of the proposed pipeline?
- b) What is the closest water well located to the proposed pipeline?
- c) Has Enbridge conducted a pre-construction well monitoring program along the proposed pipeline? If yes, please provide a copy.
- d) What cost estimate has Enbridge included in the project for well monitoring during construction?

### Response:

### a - b)

The pipeline alignment is currently in the design phase, therefore, the number of water wells within 100 meters cannot be estimated at this time. Mapping of water well records, including type of water well, is provided in Figures C.1.1 - C.1.17 of the Environmental Report<sup>1</sup>. Smaller scale mapping is provided on the Environmental Alignment Sheets.<sup>2</sup>

- c) Participation in a pre-construction well monitoring program will be offered to residents. Well monitoring results will be provided directly to the owner of the well.
- d) Well monitoring is completed by a third-party consultant. Enbridge Gas commits to completing well monitoring for well owners that choose to participate. The anticipated cost of the private well survey work is included in Exhibit E, Tab 1, Schedule 1, Table 1, Item No. 4.0.

<sup>&</sup>lt;sup>1</sup> Exhibit F, Tab 1, Schedule 1, Attachment 1, Appendix C.

<sup>&</sup>lt;sup>2</sup> Exhibit F, Tab 1, Schedule 1, Attachment 1, Appendix G.

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# ENBRIDGE GAS INC.

Answer to Interrogatory from <u>Pollution Probe (PP)</u>

Interrogatory

Reference:

<u>Question(s)</u>:

Please confirm that Enbridge has not received the required TSSA review sign-off letter. If the letter has been received, please provide a copy.

### Response:

Enbridge Gas has not received the TSSA review sign-off letter to date. Please see response at Exhibit I.STAFF-8.