

Schedule 5U
Enbridge Gas Community Expansion Project Proposal
Alderville and Roseneath

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i>
<i>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.</i>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

3.1

Redacted

Please refer to Schedule 5U-1 for Project Map.

3.2	<p>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.</p> <p>Please refer to Schedule 5U-2, Table 3.2.</p>
3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 5U-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5U-3, Table 3.4.</p>

3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 5U-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>No letter of support has been provided by the local government in time for this project submission.</p>
3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5U-6 for Enbridge's CPCN for the Township of Alnwick / Haldimand (EB-2008-0088) which covers parts of the proposed project within the communities of Alderville and Roseneath and Enbridge's CPCN for the Township of Hamilton (FBC 210) which covers the area of the proposed tie-in.</p> <p>A Band Council Resolution and Section 28 permit pursuant to the <i>Indian Act</i> will be required for parts of the proposed project within the Alderville First Nation Reserve.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>

4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 5U-2, Table 4.2.</p>														
4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table><tr><td>Description</td><td>Year 1</td><td>Year 2...</td><td>Year 10</td><td>Total</td></tr><tr><td>Revenue Requirement</td><td></td><td></td><td></td><td></td></tr></table> <table><tr><td>Description</td><td>Year 10</td></tr><tr><td>Closing Rate Base</td><td></td></tr></table> <p>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).</p> <p>Please refer to Schedule 5U-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$18,916,120</p> <p>Please refer to Schedule 5U-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$64,560</p> <p>Please refer to Schedule 5U-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$28.94</p> <p>Please refer to Schedule 5U-2, Table 5.3.</p>

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 5U-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 5U-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 5U-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 5U-4.</p>

Schedule 5U-1
Enbridge Gas Community Expansion Project Proposal
Alderville and Roseneath

Alderville, Roseneath & Alderville FN



Schedule 5U-2
Enbridge Gas Community Expansion Project Proposal
Alderville and Roseneath

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	86	62	43	22	22	9	9	9	9	9	280
	-	7	2	2	1	1	-	-	-	-	13
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	86	69	45	24	23	10	9	9	9	9	293
	86	155	200	224	247	257	266	275	284	293	

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

Customer Type	Annual Volumes - m3										Total
Project Year	1	2	3	4	5	6	7	8	9	10	
Residential	94,600	257,400	372,900	444,400	492,800	526,900	546,700	566,500	586,300	606,100	4,494,600
Commercial	-	14,400	32,400	39,600	44,300	46,500	47,600	47,600	47,600	47,600	367,600
Institutional	-	-	-	-	-	-	-	-	-	-	-
Agricultural	-	-	-	-	-	-	-	-	-	-	-
Industrial	-	-	-	-	-	-	-	-	-	-	-
Total Volumes	94,600	271,800	405,300	484,000	537,100	573,400	594,300	614,100	633,900	653,700	4,862,200

Customer Type	Cumulative Volumes - m3										
Project Year	1	2	3	4	5	6	7	8	9	10	
Residential	94,600	352,000	724,900	1,169,300	1,662,100	2,189,000	2,735,700	3,302,200	3,888,500	4,494,600	
Commercial	-	14,400	46,800	86,400	130,700	177,200	224,800	272,400	320,000	367,600	
Institutional	-	-	-	-	-	-	-	-	-	-	
Agricultural	-	-	-	-	-	-	-	-	-	-	
Industrial	-	-	-	-	-	-	-	-	-	-	
Total Volumes	94,600	366,400	771,700	1,255,700	1,792,800	2,366,200	2,960,500	3,574,600	4,208,500	4,862,200	

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

Total Capital Costs	Year 10

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Project Year	1	2	3	4	5	6	7	8	9	10	Total
Revenue Requirement											

Closing Rate Base (net of proposed Section 36.2 funding)	Year 10

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 18,916,120
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> \$ 64,560
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u>Year 10</u> \$ 28.94
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Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	19,923	56,415	83,532	99,764	110,776	118,421	122,823	126,992	131,162	135,332	\$ 1,005,140
SES Revenue		21,758	62,514	93,219	111,320	123,533	131,882	136,689	141,243	145,797	150,351	1,118,306
Total Distribution Charge	\$	<u>41,681</u>	<u>118,929</u>	<u>176,751</u>	<u>211,084</u>	<u>234,309</u>	<u>250,303</u>	<u>259,512</u>	<u>268,235</u>	<u>276,959</u>	<u>285,683</u>	<u>\$ 2,123,446</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 5U-3
Enbridge Gas Community Expansion Project Proposal
Alderville and Roseneath

Section 3.4 Alderville, Roseneath and Alderville FN

Total Forecasted Customers 293 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel) ³	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	62	21%	\$ 5,000	\$ 2,787	\$ 1,495	\$ 1,292	\$ 79,502	6.6	-2.4	403	(150)
Electricity F/A	26	9%	\$ 5,000	\$ 1,998	\$ 1,495	\$ 503	\$ 13,261	0.5	3.6	14	95
Electricity Baseboard	35	12%	\$ 12,000	\$ 1,998	\$ 1,495	\$ 503	\$ 17,681	0.5	3.6	19	126
Propane	129	44%	\$ 600	\$ 1,611	\$ 1,495	\$ 116	\$ 14,989	5.1	-1.0	658	(127)
Wood	26	9%	\$ 3,500	N/A	N/A	\$ -	N/A	NA	NA	NA	NA
Other	15	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	293	100%	\$ 31,100	\$ 8,395	\$ 5,981	\$ 2,414	\$ 125,432	12.7	3.8	1,094	(55)

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.

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.

³ Estimated Annual Energy Costs for Electricity F/A and Electricity Baseboard for Customers in Alderville First Nation Community is approximately \$1,673 resulting in \$173 annual estimated savings per customer if converted to Natural Gas.

	Emission 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 01 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.680
Heating oil	L	2397	Heating oil	\$/L	1.163
Electricity	kWh	17778	Electricity	\$/kWh	0.112
Propane	L	3309	Propane	\$/L	0.487

Notes:

Gas prices correspond to EGI (Union Gas North East) April 2020 rates, including 23 cents per m3 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 are currently unavailable for the Union North Rate zones.

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

Schedule 5U-4
Enbridge Gas Community Expansion Project Proposal
Alderville and Roseneath

Alderville, Roseneath and Alderville FN Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 5U-6
Enbridge Gas Community Expansion Project Proposal
Alderville and Roseneath

EB-2008-0088

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Union Gas Limited

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 Alnwick/Haldimand

This Certificate of Public Convenience and Necessity replaces Certificate F.B.C. 209 for the former Township of Haldimand.

DATED at Toronto, May 30, 2008
ONTARIO ENERGY BOARD

Original Signed By

Neil McKay
Manager, Facilities Applications

F.B.C. No. 210

ONTARIO FUEL BOARD

IN THE MATTER OF The Municipal Franchises
Act, Chapter 249, R.S.O. 1950, Section 8,
as amended, and

IN THE MATTER OF an application by Lakeland
Natural Gas Limited for a certificate of
public convenience and necessity to construct
works and to supply gas to the inhabitants of
the Township of Hamilton.

B E F O R E :

A. R. CROZIER, Chairman	}	MONDAY, THE 17TH DAY OF
J. J. WINGFELDER, Commissioner		MARCH, 1958.

CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

UPON the application of Lakeland Natural Gas Limited (hereinafter referred to as the "Applicant") for a Certificate of Public Convenience and Necessity to construct works to supply and to supply gas to the inhabitants of the Township of Hamilton pursuant to the provisions of the Municipal Franchises Act, R.S.O. 1950, Chapter 249, Section 8, and amendments thereto, and at a public hearing of such application by the Ontario Fuel Board at the City of Toronto on the 17th day of March, 1958, after due notice of such hearing had been given as directed by the Board, in the presence of counsel for the Applicant and upon consideration of the evidence and exhibits produced at the hearing and upon hearing what was alleged by counsel aforesaid:


1. THIS BOARD DOTH ORDER that a Certificate of Public Convenience and Necessity be and the same is hereby granted to Lakeland Natural Gas Limited for the supply of gas to the inhabitants of the Township of Hamilton and for the construction of the works necessary therefor.

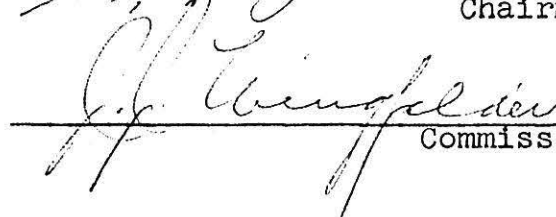
2. AND THIS BOARD DOTH FURTHER ORDER that the costs of

this hearing are fixed at \$5.00 and shall be paid forthwith by the Applicant to the Board.

DATED at Toronto this 2nd day of May, 1958.

ONTARIO FUEL BOARD


Chairman


Commissioner

Schedule 5V
Enbridge Gas Community Expansion Project Proposal
Astorville

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

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

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3.1

Redacted

3.2

Please refer to Schedule 5V-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 5V-2, Table 3.3.</p>
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3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5V-6 for Enbridge's CPCN for the Township of East Ferris (EBC 132) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 5V-2, Table 4.2.</p>

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				

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).

Please refer to Schedule 5V-2, Table 4.3.

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$23,574,415</p> <p>Please refer to Schedule 5V-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$61,875</p> <p>Please refer to Schedule 5V-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$23.35</p> <p>Please refer to Schedule 5V-2, Table 5.3.</p>

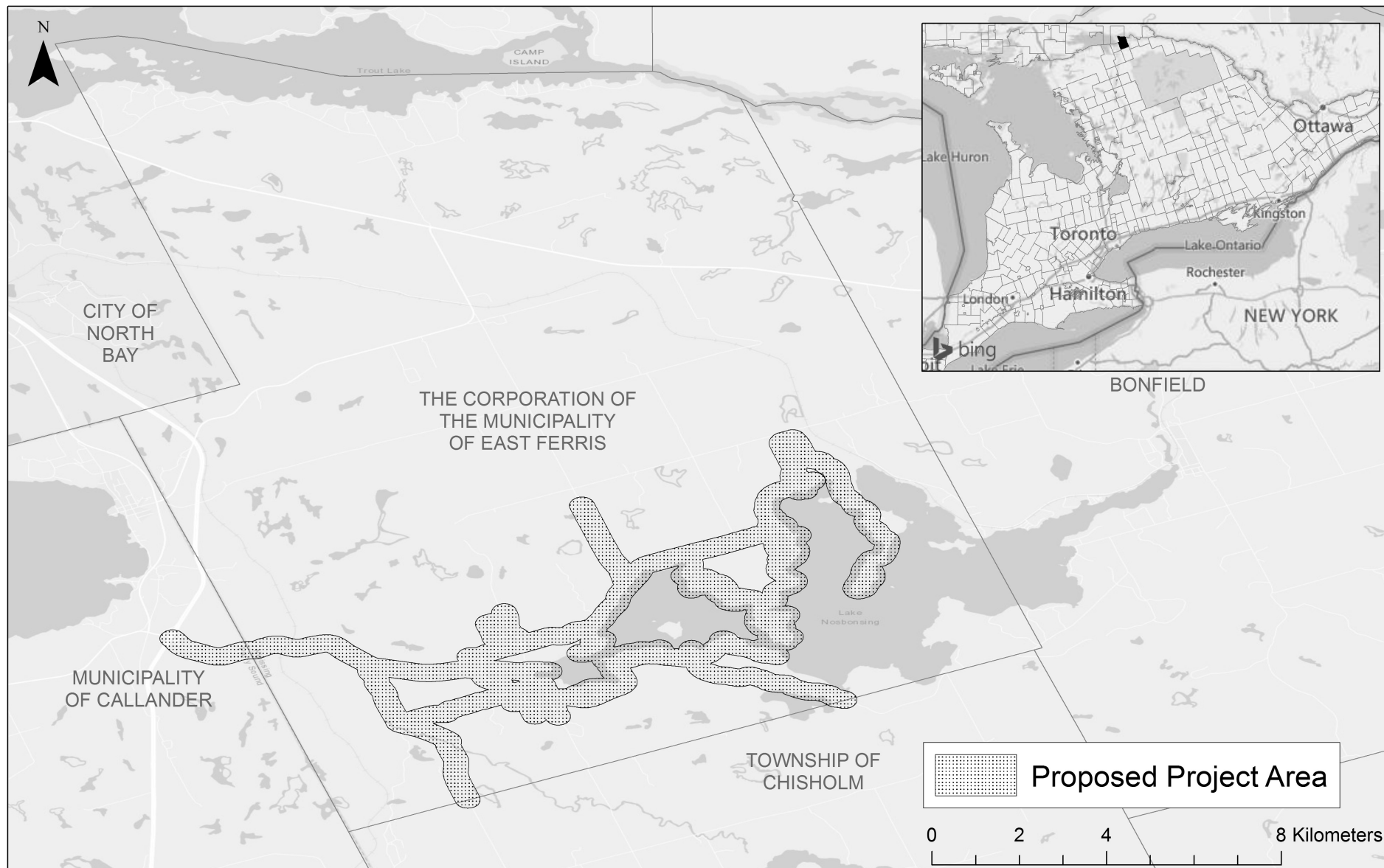
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the rate stability period.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 5V-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 5V-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 5V-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 5V-4.</p>

Schedule 5V-1
Enbridge Gas Community Expansion Project Proposal
Astorville

Astorville



Schedule 5V-2
Enbridge Gas Community Expansion Project Proposal
Astorville

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	120	85	60	25	25	12	12	12	8	8	367
	-	8	3	-	-	-	-	-	-	-	11
	-	1	-	-	-	-	-	-	-	-	1
	-	1	-	-	-	-	-	-	-	-	1
	-	1	-	-	-	-	-	-	-	-	1
	120	96	63	25	25	12	12	12	8	8	381
	120	216	279	304	329	341	353	365	373	381	

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

Customer Type	Annual Volumes - m3										Total
Project Year	1	2	3	4	5	6	7	8	9	10	Total
Residential	132,000	357,500	517,000	610,500	665,500	706,200	732,600	759,000	781,000	798,600	6,059,900
Commercial	-	20,800	46,300	51,000	51,000	51,000	51,000	51,000	51,000	51,000	424,100
Institutional	-	25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	425,000
Agricultural	-	5,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	85,000
Industrial	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
Total Volumes	132,000	458,300	723,300	821,500	876,500	917,200	943,600	970,000	992,000	1,009,600	7,844,000

Customer Type	Cumulative Volumes - m3										Total
Project Year	1	2	3	4	5	6	7	8	9	10	Total
Residential	132,000	489,500	1,006,500	1,617,000	2,282,500	2,988,700	3,721,300	4,480,300	5,261,300	6,059,900	
Commercial	-	20,800	67,100	118,100	169,100	220,100	271,100	322,100	373,100	424,100	
Institutional	-	25,000	75,000	125,000	175,000	225,000	275,000	325,000	375,000	425,000	
Agricultural	-	5,000	15,000	25,000	35,000	45,000	55,000	65,000	75,000	85,000	
Industrial	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000	
Total Volumes	132,000	590,300	1,313,600	2,135,100	3,011,600	3,928,800	4,872,400	5,842,400	6,834,400	7,844,000	

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

Total Capital Costs	Year 10

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Project Year	1	2	3	4	5	6	7	8	9	10	Total
Revenue Requirement											

Closing Rate Base (net of proposed Section 36.2 funding)	Year 10

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 23,574,415
--	---------------

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> \$ 61,875
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u>Year 10</u> \$ 23.35
---	----------------------------

Table 6.1 - Distribution Charge

	<u>Project Year</u>	<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>
Distribution Revenue	\$	27,800	84,795	128,709	149,220	160,803	169,374	174,934	180,494	185,127	188,834	\$ 1,450,090
SES Revenue		30,360	105,409	166,359	188,945	201,595	210,956	217,028	223,100	228,160	232,208	1,804,120
Total Distribution Charge	\$	<u>58,160</u>	<u>190,204</u>	<u>295,068</u>	<u>338,165</u>	<u>362,398</u>	<u>380,330</u>	<u>391,962</u>	<u>403,594</u>	<u>413,287</u>	<u>421,042</u>	<u>\$ 3,254,210</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 5V-3
Enbridge Gas Community Expansion Project Proposal
Astorville

Section 3.4 Astorville

Total Forecasted Customers 381 Penetration Rate 52%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	61	16%	\$ 5,000	\$ 2,787	\$ 1,495	\$ 1,292	\$ 79,218	6.6	-2.4	402	(149)
Electricity F/A	18	5%	\$ 5,000	\$ 1,998	\$ 1,495	\$ 503	\$ 8,809	0.5	3.6	9	63
Electricity Baseboard	31	8%	\$ 12,000	\$ 1,998	\$ 1,495	\$ 503	\$ 15,415	0.5	3.6	16	110
Propane	131	34%	\$ 600	\$ 1,611	\$ 1,495	\$ 116	\$ 15,275	5.1	-1.0	671	(129)
Wood	66	17%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	74	20%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	381	100%	\$ 31,100	\$ 8,395	\$ 5,981	\$ 2,414	\$ 118,717	12.7	3.8	1,098	(105)

¹ Based on completed Market Research for this community. Fuel percentages may not add up to 100% due to rounding error

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.

	Emission 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 01 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.680
Heating oil	L	2397	Heating oil	\$/L	1.163
Electricity	kWh	17778	Electricity	\$/kWh	0.112
Propane	L	3309	Propane	\$/L	0.487

Notes:

Gas prices correspond to EGI (Union Gas North East) April 2020 rates, including 23 cents per m3 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 are currently unavailable for the Union North Rate zones.

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

Schedule 5V-4
Enbridge Gas Community Expansion Project Proposal
Astorville

Astorville Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 5V-5
Enbridge Gas Community Expansion Project Proposal
Astorville

MUNICIPALITÉ • EAST FERRIS • MUNICIPALITY

390 Highway 94
Corbeil, Ontario
P0H 1K0



Tel.: (705) 752-2740
Fax.: (705) 752-2452
municipality@eastferris.ca

June 30, 2020

Enbridge Gas Inc.
1211 Amber Drive
Thunder Bay, ON
P7B 6M4
Attention: Wendy Landry

Dear Regional Director,

Re: Expression of Support for Natural Gas Expansion to the Municipality of East Ferris - [REDACTED] & Astorville Project

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. Our municipality is one such area, and we are eager to bring this affordable, reliable fuel source to our residents and businesses.

On behalf of the Municipality of East Ferris, I would like to formally express our interest to have the Astorville and [REDACTED] 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,

Pauline Rochefort

Mayor Pauline Rochefort
Municipality of East Ferris

Schedule 5V-6
Enbridge Gas Community Expansion Project Proposal
Astorville



IN THE MATTER OF The Municipal
Franchises Act, R.S.O. 1980, Chapter
309, Section 8 and amendments
thereto;

AND IN THE MATTER OF an Application
by Northern and Central Gas
Corporation Limited for a Certificate
of Public Convenience and Necessity
to construct works and to supply gas
to the inhabitants of the Township of
East Ferris in the District of
Nipissing.

BEFORE: H. R. Chatterson)
Presiding Member)
D. A. Dean) August 9 & 10, 1984
Member)

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

UPON THE APPLICATION of Northern and Central Gas
Corporation Limited ("Northern") to the Ontario Energy
Board for a Certificate of Public Convenience and
Necessity to construct works and to supply gas in the
Township of East Ferris;

AND Notice of Application having been published
in the Ontario Gazette and The Nugget and the Kenora Daily
Miner & News and served upon the Clerk of the Township of
East Ferris, and no answer having been filed;

- 2 -

AND UPON the application having been heard on August 9 and 10, 1984 in the presence of counsel for Northern and for the Board, no one else appearing;

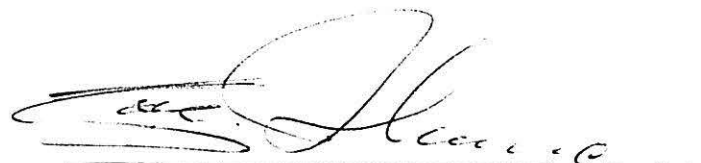
AND UPON the Board having reserved its decision at the conclusion of the hearing and having issued written Reasons for Decision on August 23, 1984 finding that public convenience and necessity requires that approval be given;

IT IS THEREFORE ORDERED THAT:

1. A Certificate of Public Convenience and Necessity be hereby granted to Northern to construct works to supply and to supply gas in the Township of East Ferris.
2. The Board's costs shall be paid by Northern as soon as they have been fixed.

ISSUED at Toronto this *14/7/84* day of September, 1984.

ONTARIO ENERGY BOARD


S.A.C. Thomas
Board Secretary

Schedule 5W
Enbridge Gas Community Expansion Project Proposal
Burritts Rapids (North Grenville)

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1
Redacted

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.

Enbridge Gas is proposing to provide gas distribution service in the community of Burritts Rapids within the Municipality of North Grenville. The proposed facilities will provide access to natural gas to a forecasted 30 customers (29 residential and 1 commercial / institutional).

The proposed project will tie-in to an existing 4" steel XHP pipeline on _____. The proposed facilities will run _____ along _____ to _____, _____, _____, _____, _____ and _____.

A new distribution station is proposed to be built at the tie-in point.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	1,055
Polyethylene	4	380

Please refer to Schedule 5W-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 5W-2, Table 3.2.

3.3

Provide the annual and cumulative forecast of volumes (in m³) 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 m³ 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 5W-2, Table 3.3.

3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5W-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 5W-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 5W-5.</p>
3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5W-6 for Enbridge's CPCN for the Municipality of North Grenville (RP-2000-0074 / EB-2003-0153) which covers the entire area of the proposed project.</p>

	(Note: The Township of North Grenville was established on January 1, 1998 through the amalgamation of Oxford-on-Rideau Township, South Gower Township and the Town of Kemptville. In 2003, a motion of the municipal council adopted the designation of “municipality”.)
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 5W-2, Table 4.2.</p>

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				

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).

Please refer to Schedule 5W-2, Table 4.3.

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$978,302</p> <p>Please refer to Schedule 5W-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$32,610</p> <p>Please refer to Schedule 5W-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$13.82</p> <p>Please refer to Schedule 5W-2, Table 5.3.</p>

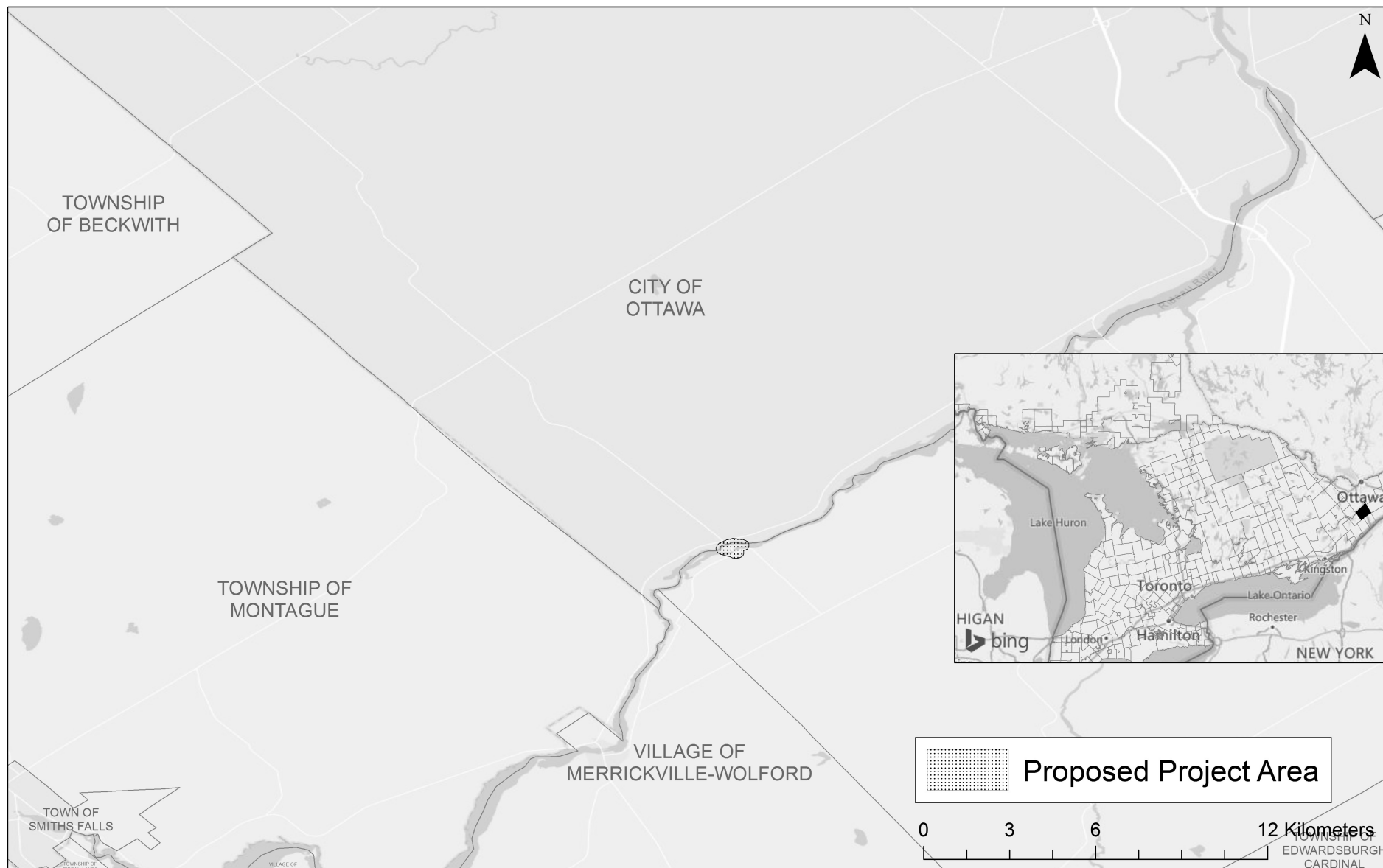
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the rate stability period.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 5W-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 5W-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 5W-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <p>N/A</p>
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 5W-4.</p>

Schedule 5W-1
Enbridge Gas Community Expansion Project Proposal
Burritts Rapids (North Grenville)

Burritts Rapids



Schedule 5W-2
Enbridge Gas Community Expansion Project Proposal
Burritts Rapids (North Grenville)

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT	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>	Total
Residential	Firm		9	7	4	2	2	1	1	1	1	1	29
Commercial	Firm		-	1	-	-	-	-	-	-	-	-	1
Institutional	Firm		-	-	-	-	-	-	-	-	-	-	-
Agricultural	Firm		-	-	-	-	-	-	-	-	-	-	-
Industrial	Firm		-	-	-	-	-	-	-	-	-	-	-
Total Customers			<u>9</u>	<u>8</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>30</u>
Cumulative Customers			9	17	21	23	25	26	27	28	29	30	

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

Customer Type	Project Year	Annual Volumes - m3										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>	<u>10</u>	
Residential		10,800	30,000	43,200	50,400	55,200	58,800	61,200	63,600	66,000	68,400	507,600
Commercial		-	1,200	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	20,400
Institutional		-	-	-	-	-	-	-	-	-	-	-
Agricultural		-	-	-	-	-	-	-	-	-	-	-
Industrial		-	-	-	-	-	-	-	-	-	-	-
Total Volumes		<u>10,800</u>	<u>31,200</u>	<u>45,600</u>	<u>52,800</u>	<u>57,600</u>	<u>61,200</u>	<u>63,600</u>	<u>66,000</u>	<u>68,400</u>	<u>70,800</u>	<u>528,000</u>

Customer Type	Project Year	Cumulative Volumes - m3									
		<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		10,800	40,800	84,000	134,400	189,600	248,400	309,600	373,200	439,200	507,600
Commercial		-	1,200	3,600	6,000	8,400	10,800	13,200	15,600	18,000	20,400
Institutional		-	-	-	-	-	-	-	-	-	-
Agricultural		-	-	-	-	-	-	-	-	-	-
Industrial		-	-	-	-	-	-	-	-	-	-
Total Volumes		<u>10,800</u>	<u>42,000</u>	<u>87,600</u>	<u>140,400</u>	<u>198,000</u>	<u>259,200</u>	<u>322,800</u>	<u>388,800</u>	<u>457,200</u>	<u>528,000</u>

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

	<u>Year 10</u>
Total Capital Costs	

Table 4.3 - Revenue Requirement Over The Rate Stability Period

	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>	Total
Revenue Requirement												

	<u>Year 10</u>
Closing Rate Base (net of proposed Section 36.2 funding)	

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project

\$978,302

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served

Year 10

\$32,610

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Volume (m3)

Year 10

\$13.82

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	1,892	5,783	8,621	9,883	10,724	11,355	11,775	12,196	12,617	13,037	\$97,884
SES Revenue		2,484	7,176	10,488	12,144	13,248	14,076	14,628	15,180	15,732	16,284	121,440
Total Distribution Charge	\$	4,376	12,959	19,109	22,027	23,972	25,431	26,403	27,376	28,349	29,321	\$219,324

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	Net Present Value
Cash Inflow	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
Cash Outflow	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	1.00

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

	Net Present Value
Cash Inflow	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
Cash Outflow	
Gross Capital	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Without Section 36.2 Funding (C / D)	

Schedule 5W-3
Enbridge Gas Community Expansion Project Proposal
Burritts Rapids (North Grenville)

Section 3.4 Burritts Rapids

Total Forecasted Customers 30 Penetration Rate 66%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	6	21%	\$ 5,000	\$ 3,050	\$ 1,481	\$ 1,570	\$ 9,889	7.2	-2.7	45	(17)
Electricity F/A	3	9%	\$ 5,000	\$ 2,187	\$ 1,481	\$ 706	\$ 1,907	0.6	3.9	2	11
Electricity Baseboard	4	12%	\$ 12,000	\$ 2,187	\$ 1,481	\$ 706	\$ 2,543	0.6	3.9	2	14
Propane	13	44%	\$ 600	\$ 1,764	\$ 1,481	\$ 283	\$ 3,740	5.6	-1.1	74	(14)
Wood	3	9%	\$ 3,500	N/A	N/A	\$ -	N/A	NA	NA	NA	NA
Other	2	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	30	100%	\$ 31,100	\$ 9,188	\$ 5,923	\$ 3,266	\$ 18,080	13.9	4.1	123	(7)

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.

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.

	Emission 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)					
Consumption 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 m³ 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.

Schedule 5W-4
Enbridge Gas Community Expansion Project Proposal
Burritts Rapids (North Grenville)

Burritts Rapids Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 5W-5
Enbridge Gas Community Expansion Project Proposal
Burritts Rapids (North Grenville)



May 26, 2020

Ian Ross P. Eng, MBA
Director - Eastern Region Operations
Enbridge Gas Inc.
400 Coventry Road | Ottawa, K1K 2C7

Dear Mr. Ross,

RE: Expression of Support for Natural Gas Expansion to Municipality of North Grenville – Hamlet of Burritts Rapids

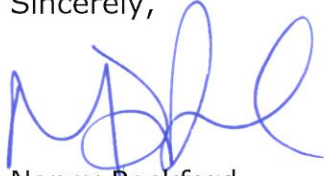
In December 2019, the Government of Ontario announced plans to further increase access to natural gas by making financial support available for new service expansion projects. This Natural Gas Expansion Program will unlock financial support needed to expand natural gas service to new areas across Ontario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

On behalf of Municipality of North Grenville, I would like to formally express our interest to have the hamlet of Burritts Rapids included on the Enbridge Gas list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through the Natural Gas Expansion Program. See attached mapping and housing counts for the proposed area of expansion.

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,



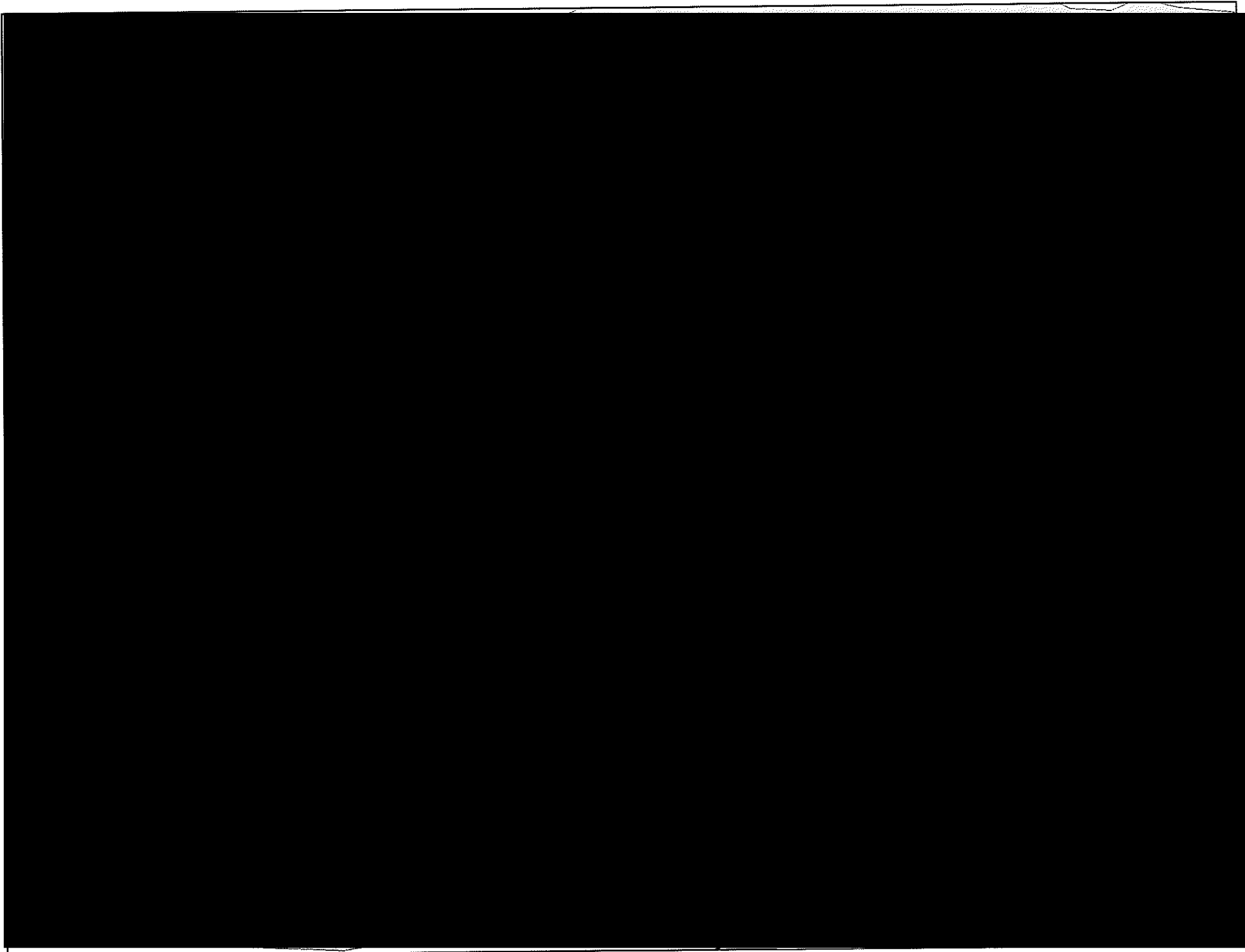
Nancy Peckford
Mayor, North Grenville

Office of the Mayor

Municipality of North Grenville

285 County Road 44, Box 130, Kemptville, ON, K0G 1J0

T(613) 258-9569 F(613) 258-9620 npeckford@northgrenville.on.ca



Schedule 5W-6
Enbridge Gas Community Expansion Project Proposal
Burritts Rapids (North Grenville)



Ontario Energy
Board

Commission de l'Énergie
de l'Ontario



RP-2000-0074

EB-2003-0153

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Enbridge Gas Distribution Inc.

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

Township of North Grenville..

This certificate replaces the certificates of the former municipalities that are now within the Township of North Grenville.

DATED at Toronto, January 6, 2004.

ONTARIO ENERGY BOARD

Paul B. Pudge
Assistant Secretary

Schedule 5X
Enbridge Gas Community Expansion Project Proposal
Camden East, Yarker, Tamworth and Erinsville

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to provide gas distribution service to the communities of Camden East, Yarker, Tamworth and Erinsville in the Township of Stone Mills. The proposed facilities will provide access to natural gas to a forecasted 1,022 customers (941 residential, 66 commercial / institutional and 15 industrial).

The proposed tie-in point will be near the intersection of _____ and _____ in the Township of Stone Mills connecting to existing 8" steel pipeline at which a large station will be required. The proposed distribution pipeline will consist of 66,000 m of 2" polyethylene pipe, 4,050 m of 4" polyethylene pipe, 34,000 m of 2" steel pipe and 12,900 m of 4" steel pipe.

The proposed distribution system will extend _____ along _____ and _____ up to _____ in the Township of Loyalist. It will also extend along _____ (_____) to the community of Camden East and _____ on _____ to include _____ and _____. In the community of Yarker, the system will include _____, _____, _____ and _____ as well as _____, _____, _____, _____ to reach the community of Tamworth up to _____ and _____. The system will extend along _____ to reach the community of Erinsville up to _____.

There will be no reinforcement required for the system.

There are 10 class-7 distribution stations required located:

- near the intersection of _____ and _____
- near the intersection of _____ and _____
- near the intersection of _____ and _____
- near the intersection of _____ and _____
- near the intersection of _____ and _____
- near the intersection of _____ and _____
- near the intersection of _____ and _____ in the Township of Loyalist
- near the intersection of _____ and _____
- near the intersection of _____ and _____ in the Township of Loyalist
- near the intersection of _____ and _____

In addition, there are 2 small distribution stations required. The first station to be built near the intersection of _____ and _____ in the Township of Stone Mills. The second station to be built near the intersection of _____ and _____ in the Township of Loyalist.

	<p>The approximate length and size of the distribution pipelines required:</p> <table><tr><td>Pipe Type</td><td>Diameter (NPS)</td><td>Length (m)</td></tr><tr><td>Polyethylene</td><td>2</td><td>66,000</td></tr></table> <p>The approximate length and size of the supply laterals required:</p> <table><tr><td>Pipe Type</td><td>Diameter (NPS)</td><td>Length (m)</td></tr><tr><td>Polyethylene</td><td>4</td><td>4,050</td></tr><tr><td>Steel</td><td>2</td><td>34,000</td></tr><tr><td>Steel</td><td>4</td><td>12,900</td></tr></table> <p>Please refer to Schedule 5X-1 for Project Map.</p>	Pipe Type	Diameter (NPS)	Length (m)	Polyethylene	2	66,000	Pipe Type	Diameter (NPS)	Length (m)	Polyethylene	4	4,050	Steel	2	34,000	Steel	4	12,900
Pipe Type	Diameter (NPS)	Length (m)																	
Polyethylene	2	66,000																	
Pipe Type	Diameter (NPS)	Length (m)																	
Polyethylene	4	4,050																	
Steel	2	34,000																	
Steel	4	12,900																	
3.2	<p>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.</p> <p>Please refer to Schedule 5X-2, Table 3.2.</p>																		
3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 5X-2, Table 3.3.</p>																		

3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5X-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 5X-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>No letter of support has been provided by the local government in time for this project submission.</p>
3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5X-6 for Enbridge's CPCNs for the Township of Stone Mills (EB-2007-0024) and the Township of Loyalist (EB-2007-0022) which cover the entire area of the proposed project.</p>

Part IV – Cost of Project															
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>														
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 5X-2, Table 4.2.</p>														
4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Year 1</th> <th>Year 2...</th> <th>Year 10</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Description</th> <th>Year 10</th> </tr> </thead> <tbody> <tr> <td>Closing Rate Base</td> <td></td> </tr> </tbody> </table> <p>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).</p> <p>Please refer to Schedule 5X-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$49,492,017</p> <p>Please refer to Schedule 5X-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$48,427</p> <p>Please refer to Schedule 5X-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$12.90</p> <p>Please refer to Schedule 5X-2, Table 5.3.</p>

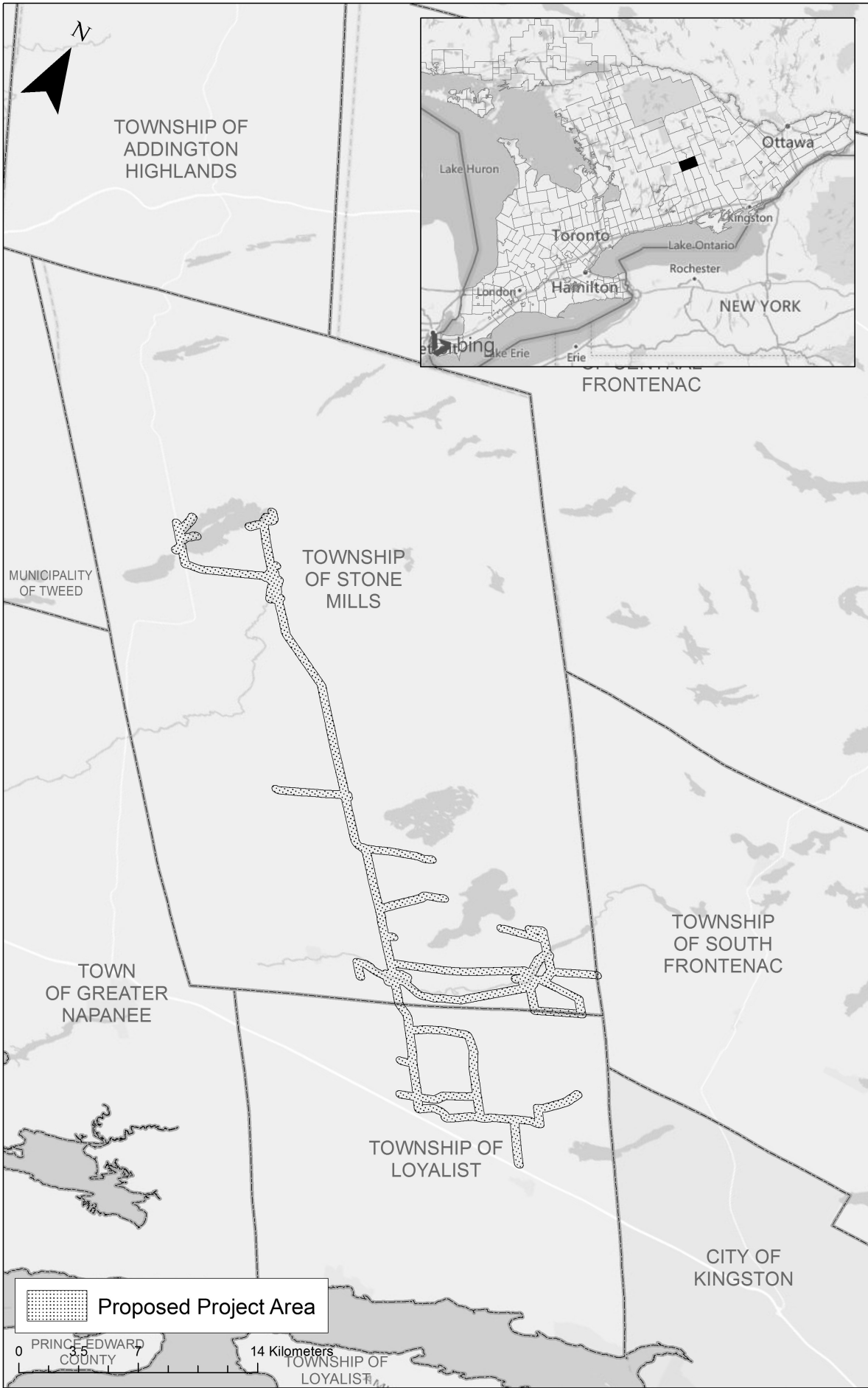
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the rate stability period.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 5X-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 5X-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 5X-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 5X-4.</p>

Schedule 5X-1
Enbridge Gas Community Expansion Project Proposal
Camden East, Yarker, Tamworth and Erinsville

Camden East, Yarker, Tamworth, Erinsville



Schedule 5X-2
Enbridge Gas Community Expansion Project Proposal
Camden East, Yarker, Tamworth and Erinsville

Table 3.2 - Customer Attachments Over The Rate Stability Period

<u>Customer Type</u>	<u>Firm / IT</u>
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

<u>Project Year</u>	<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>
	289	217	144	73	73	29	29	29	29	29	941
	-	35	10	5	5	2	2	2	1	1	63
	-	2	-	-	-	-	-	-	-	-	2
	-	1	-	-	-	-	-	-	-	-	1
	-	8	7	-	-	-	-	-	-	-	15
	<u>289</u>	<u>263</u>	<u>161</u>	<u>78</u>	<u>78</u>	<u>31</u>	<u>31</u>	<u>31</u>	<u>30</u>	<u>30</u>	<u>1,022</u>
	289	552	713	791	869	900	931	962	992	1,022	

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

<u>Customer Type</u>	<u>Annual Volumes - m3</u>										<u>Total</u>
<u>Project Year</u>	<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	315,977	869,052	1,263,588	1,500,685	1,660,003	1,771,242	1,834,401	1,897,560	1,960,719	2,023,878	15,097,102
Commercial	-	55,000	125,200	147,300	161,100	171,600	178,800	186,000	190,700	192,900	1,408,600
Institutional	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
Agricultural	-	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	170,000
Industrial	-	400,000	1,150,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	12,050,000
Total Volumes	<u>315,977</u>	<u>1,384,052</u>	<u>2,658,788</u>	<u>3,267,985</u>	<u>3,441,103</u>	<u>3,562,842</u>	<u>3,633,201</u>	<u>3,703,560</u>	<u>3,771,419</u>	<u>3,836,778</u>	<u>29,575,702</u>

<u>Customer Type</u>	<u>Cumulative Volumes - m3</u>										
<u>Project Year</u>	<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	315,977	1,185,029	2,448,616	3,949,301	5,609,304	7,380,546	9,214,946	11,112,506	13,073,224	15,097,102	
Commercial	-	55,000	180,200	327,500	488,600	660,200	839,000	1,025,000	1,215,700	1,408,600	
Institutional	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000	
Agricultural	-	10,000	30,000	50,000	70,000	90,000	110,000	130,000	150,000	170,000	
Industrial	-	400,000	1,550,000	3,050,000	4,550,000	6,050,000	7,550,000	9,050,000	10,550,000	12,050,000	
Total Volumes	<u>315,977</u>	<u>1,700,029</u>	<u>4,358,816</u>	<u>7,626,801</u>	<u>11,067,904</u>	<u>14,630,746</u>	<u>18,263,946</u>	<u>21,967,506</u>	<u>25,738,924</u>	<u>29,575,702</u>	

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

Total Capital Costs	<u>Year 10</u>

Table 4.3 - Revenue Requirement Over The Rate Stability Period

<u>Project Year</u>	<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>
Revenue Requirement											

Closing Rate Base (net of proposed Section 36.2 funding)	<u>Year 10</u>

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 49,492,017
--	---------------

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u><u>Year 10</u></u> \$ 48,427
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u><u>Year 10</u></u> \$ 12.90
---	---

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	66,774	229,205	387,550	468,374	504,643	530,054	544,606	559,158	573,354	587,195	\$ 4,450,914
SES Revenue		72,675	318,332	611,521	751,637	791,454	819,454	835,636	851,819	867,426	882,459	6,802,411
Total Distribution Charge	\$	<u>139,449</u>	<u>547,537</u>	<u>999,071</u>	<u>1,220,011</u>	<u>1,296,097</u>	<u>1,349,508</u>	<u>1,380,242</u>	<u>1,410,977</u>	<u>1,440,781</u>	<u>1,469,654</u>	<u>\$ 11,253,325</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	Net Present Value	
Cash Inflow		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
Cash Outflow		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 5X-3
Enbridge Gas Community Expansion Project Proposal
Camden East, Yarker, Tamworth and Erinsville

Section 3.4 Camden East, Yarker, Tamworth and Erinsville

Total Forecasted Customers 1022 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	215	21%	\$ 5,000	\$ 2,787	\$ 1,495	\$ 1,292	\$ 277,308	6.6	-2.4	1,407	(522)
Electricity F/A	92	9%	\$ 5,000	\$ 1,998	\$ 1,495	\$ 503	\$ 46,254	0.5	3.6	49	330
Electricity Baseboard	123	12%	\$ 12,000	\$ 1,998	\$ 1,495	\$ 503	\$ 61,671	0.5	3.6	65	440
Propane	450	44%	\$ 600	\$ 1,611	\$ 1,495	\$ 116	\$ 52,281	5.1	-1.0	2,296	(441)
Wood	92	9%	\$ 3,500	N/A	N/A	\$ -	N/A	NA	NA	NA	NA
Other	51	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	1022	100%	\$ 31,100	\$ 8,395	\$ 5,981	\$ 2,414	\$ 437,514	12.7	3.8	3,817	(193)

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.

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.

	Emission 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 01 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.680
Heating oil	L	2397	Heating oil	\$/L	1.163
Electricity	kWh	17778	Electricity	\$/kWh	0.112
Propane	L	3309	Propane	\$/L	0.487

Notes:

Gas prices correspond to EGI (Union Gas North East) April 2020 rates, including 23 cents per m3 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 are currently unavailable for the Union North Rate zones.

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

Schedule 5X-4
Enbridge Gas Community Expansion Project Proposal
Camden East, Yarker, Tamworth and Erinsville

Camden East, Yarker, Tamworth and Erinsville Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 5X-6
Enbridge Gas Community Expansion Project Proposal
Camden East, Yarker, Tamworth and Erinsville

EB-2007-0024

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Union Gas Limited

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 Stone Mills

This certificate replaces the certificates of the former townships that are now within the Township of Stone Mills.

DATED at Toronto, April 10, 2007

ONTARIO ENERGY BOARD

Original signed by

Neil McKay
Manager, Facilities Applications

EB-2007-0022

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Union Gas Limited

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

Loyalist Township

This certificate replaces the certificates of the former townships that are now within Loyalist Township.

DATED at Toronto, April 10, 2007

ONTARIO ENERGY BOARD

Original signed by

Neil McKay
Manager, Facilities Applications

Schedule 5Y
Enbridge Gas Community Expansion Project Proposal
Dorion

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to provide gas distribution service to the Township of Dorion within the Thunder Bay District. The proposed facilities will provide access to natural gas to a forecasted 38 customers (30 residential, 6 commercial / institutional, 1 intensive agricultural and 1 industrial).

The proposed tie-in point will be along the _____ of the _____ connecting to an existing TC Energy pipeline. The proposed distribution pipeline will consist of 9,226 m of 2" polyethylene pipe and extend _____ along _____ and partially to _____ and _____.

A new distribution station is required to tap into the existing TC Energy pipeline.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	9,226

Please refer to Schedule 5Y-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 5Y-2, Table 3.2.

3.3

Provide the annual and cumulative forecast of volumes (in m³) 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 m³ 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 5Y-2, Table 3.3.

3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5Y-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 5Y-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 5Y-5.</p>
3.7	<p>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.</p> <p>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.</p> <p>Enbridge Gas does not currently have a franchise agreement with nor a Certificate of Public Convenience and Necessity for the Township of Dorion. Enbridge Gas does have franchise agreements and CPCNs for adjacent municipalities including the Township of Red Rock and the Township of Nipigon.</p>

Part IV – Cost of Project															
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>														
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 5Y-2, Table 4.2.</p>														
4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Year 1</th> <th>Year 2...</th> <th>Year 10</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Description</th> <th>Year 10</th> </tr> </thead> <tbody> <tr> <td>Closing Rate Base</td> <td></td> </tr> </tbody> </table> <p>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).</p> <p>Please refer to Schedule 5Y-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$4,310,381</p> <p>Please refer to Schedule 5Y-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$113,431</p> <p>Please refer to Schedule 5Y-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$18.06</p> <p>Please refer to Schedule 5Y-2, Table 5.3.</p>

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 5Y-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 5Y-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 5Y-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 5Y-4.</p>

Schedule 5Y-1
Enbridge Gas Community Expansion Project Proposal
Dorion

Dorion (Outside Thunder Bay)



Schedule 5Y-2
Enbridge Gas Community Expansion Project Proposal
Dorion

Table 3.2 - Customer Attachments Over The Rate Stability Period

<u>Customer Type</u>	<u>Firm / IT</u>
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

<u>Project Year</u>	<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>
	9	7	4	2	2	2	1	1	1	1	30
	-	4	1	-	-	-	-	-	-	-	5
	-	1	-	-	-	-	-	-	-	-	1
	-	1	-	-	-	-	-	-	-	-	1
	-	1	-	-	-	-	-	-	-	-	1
	<u>9</u>	<u>14</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>38</u>
	9	23	28	30	32	34	35	36	37	38	

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

<u>Customer Type</u>
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

<u>Project Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Annual Volumes - m3</u>		<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>Total</u>
	9,900	27,500	39,600	46,200	50,600	55,000	58,300	60,500	62,700	64,900	475,200
	-	5,800	12,700	13,800	13,800	13,800	13,800	13,800	13,800	13,800	115,100
	-	25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	425,000
	-	5,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	85,000
	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
	<u>9,900</u>	<u>113,300</u>	<u>212,300</u>	<u>220,000</u>	<u>224,400</u>	<u>228,800</u>	<u>232,100</u>	<u>234,300</u>	<u>236,500</u>	<u>238,700</u>	<u>1,950,300</u>

<u>Customer Type</u>
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

<u>Project Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Cumulative Volumes - m3</u>		<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	
	9,900	37,400	77,000	123,200	173,800	228,800	287,100	347,600	410,300	475,200	
	-	5,800	18,500	32,300	46,100	59,900	73,700	87,500	101,300	115,100	
	-	25,000	75,000	125,000	175,000	225,000	275,000	325,000	375,000	425,000	
	-	5,000	15,000	25,000	35,000	45,000	55,000	65,000	75,000	85,000	
	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000	
	<u>9,900</u>	<u>123,200</u>	<u>335,500</u>	<u>555,500</u>	<u>779,900</u>	<u>1,008,700</u>	<u>1,240,800</u>	<u>1,475,100</u>	<u>1,711,600</u>	<u>1,950,300</u>	

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

Total Capital Costs

Year 10

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

<u>Project Year</u>	<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>
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Closing Rate Base (net of proposed Section 36.2 funding)
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Year 10

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project \$ 4,310,381

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served \$ Year 10
113,431

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3) \$ Year 10
18.06

Table 6.1 - Distribution Charge

	<u>Project Year</u>	<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>
Distribution Revenue	\$	2,085	13,449	23,887	25,509	26,435	27,362	28,057	28,520	28,984	29,447	\$ 233,735
SES Revenue		2,277	26,059	48,829	50,600	51,612	52,624	53,383	53,889	54,395	54,901	448,569
Total Distribution Charge	\$	<u>4,362</u>	<u>39,508</u>	<u>72,716</u>	<u>76,109</u>	<u>78,047</u>	<u>79,986</u>	<u>81,440</u>	<u>82,409</u>	<u>83,379</u>	<u>84,348</u>	<u>\$ 682,304</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

Cash Inflow

Revenue:

Distribution Revenue

System Expansion Surcharge (SES) Revenue

Total Revenue (A)

Expenses:

O&M Expense

Municipal Tax

Income Tax

Total Expenses (B)

Total Cash Inflow (C = A + B)

Cash Outflow

Gross Capital

Proposed Section 36.2 Funding

Change in Working Capital

Total Cash Outflow (D)

Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)

Net Present Value

1.00

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

	Net Present Value	
Cash Inflow		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
Cash Outflow		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 5Y-3
Enbridge Gas Community Expansion Project Proposal
Dorion

Section 3.4 Dorion

Total Forecasted Customers 38 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	8	21%	\$ 5,000	\$ 2,787	\$ 1,495	\$ 1,292	\$ 10,311	6.6	-2.4	52	(19)
Electricity F/A	3	9%	\$ 5,000	\$ 1,998	\$ 1,495	\$ 503	\$ 1,720	0.5	3.6	2	12
Electricity Baseboard	5	12%	\$ 12,000	\$ 1,998	\$ 1,495	\$ 503	\$ 2,293	0.5	3.6	2	16
Propane	17	44%	\$ 600	\$ 1,611	\$ 1,495	\$ 116	\$ 1,944	5.1	-1.0	85	(16)
Wood	3	9%	\$ 3,500	N/A	N/A	\$ -	N/A	NA	NA	NA	NA
Other	2	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	38	100%	\$ 31,100	\$ 8,395	\$ 5,981	\$ 2,414	\$ 16,268	12.7	3.8	142	(7)

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.

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.

	Emission 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 01 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.680
Heating oil	L	2397	Heating oil	\$/L	1.163
Electricity	kWh	17778	Electricity	\$/kWh	0.112
Propane	L	3309	Propane	\$/L	0.487

Notes:

Gas prices correspond to EGI (Union Gas North East) April 2020 rates, including 23 cents per m3 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 are currently unavailable for the Union North Rate zones.

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

Schedule 5Y-4
Enbridge Gas Community Expansion Project Proposal
Dorion

Dorion Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 5Y-5
Enbridge Gas Community Expansion Project Proposal
Dorion



DORION TOWNSHIP
Canyon Country

**170 Dorion Loop Road
Dorion, ON
P0T 1K0**

**E – mavis@doriontownship.ca
P – 807-857-2289
F – 807-857-2203**

July 13, 2020

Dear Mr. Skaarup,

Re: Expression of Support for Natural Gas Expansion to Township of Dorion


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. Our municipality 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 Dorion, I would like to formally express our interest to have the Township of Dorion 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.

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,


Robert Beatty
Reeve
Township of Dorion

Schedule 5Z
Enbridge Gas Community Expansion Project Proposal
Douglas

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to provide gas distribution service in the community of Douglas within the Township of Admaston / Bromley. The proposed facilities will provide access to natural gas to a forecasted 153 customers (128 residential, 24 commercial / institutional and 1 industrial).

The proposed project will tie-in to an existing NPS 12 steel extra high pressure pipeline system at the intersection of _____ and _____ and to an existing NPS 8 steel extra high pressure pipeline on _____ just _____ of _____ to run _____ approximately 800 m along _____ to the proposed station at the intersection of _____ and _____.

From the proposed station, the proposed facilities will run _____ along _____ to the community of Douglas. The proposed distribution system will cover _____ within the community and go further along _____ to include _____, _____ and _____.

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Steel	2	762

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	11,868
Polyethylene	4	16,058

Please refer to Schedule 5Z-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 5Z-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 5Z-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5Z-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 5Z-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>No letter of support has been provided by the local government in time for this project submission.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 5Z-6 for Enbridge’s CPCN for the Township of Admaston / Bromley (EB-2018-0238) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 5Z-2, Table 4.2.</p>

4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th style="text-align: left;">Description</th> <th style="text-align: center;">Year 1</th> <th style="text-align: center;">Year 2...</th> <th style="text-align: center;">Year 10</th> <th style="text-align: center;">Total</th> </tr> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th style="text-align: left;">Description</th> <th style="text-align: center;">Year 10</th> </tr> <tr> <td>Closing Rate Base</td> <td></td> </tr> </table> <p>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).</p> <p>Please refer to Schedule 5Z-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$12,756,909</p> <p>Please refer to Schedule 5Z-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$83,378</p> <p>Please refer to Schedule 5Z-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$22.58</p> <p>Please refer to Schedule 5Z-2, Table 5.3.</p>

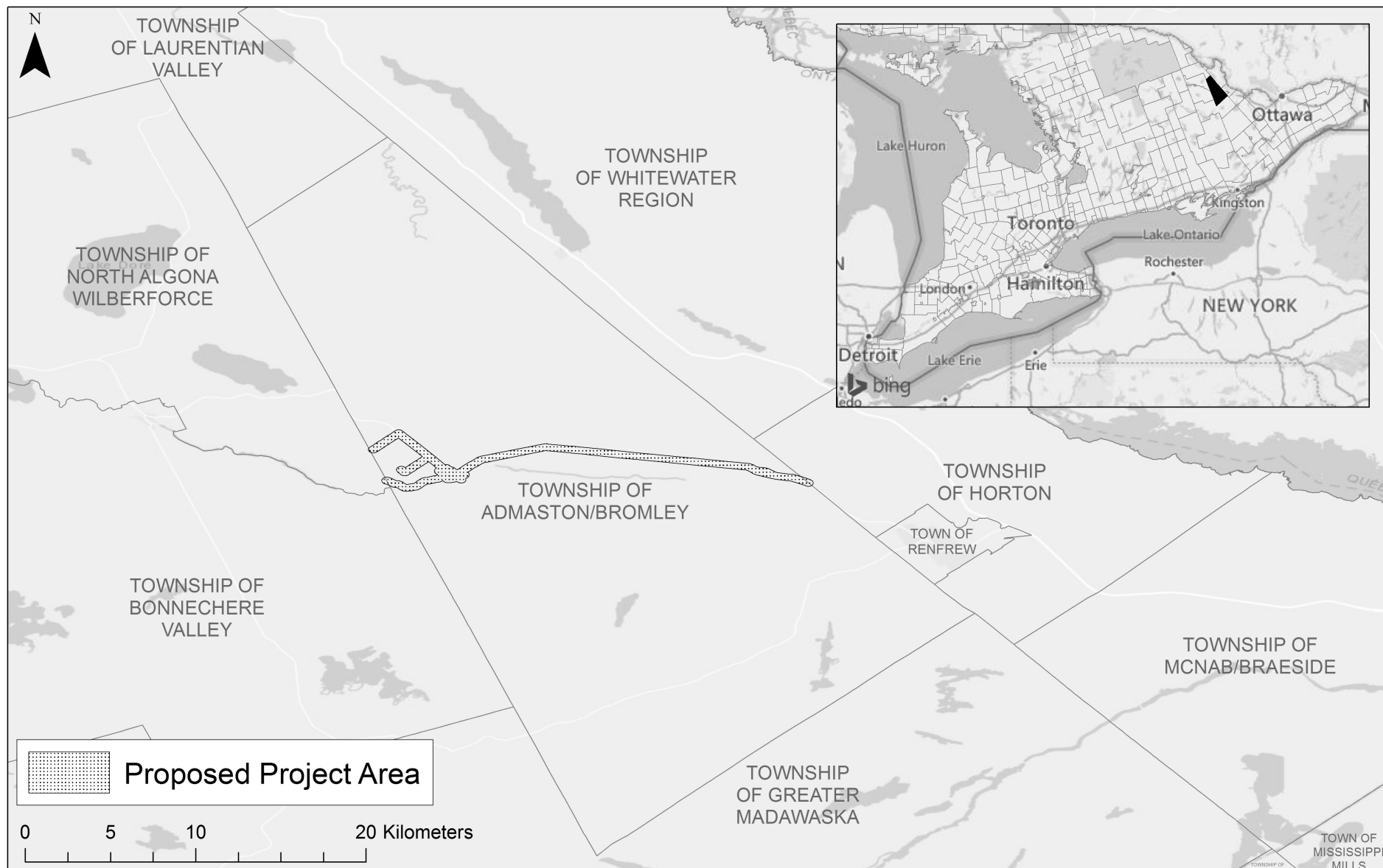
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the rate stability period.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 5Z-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 5Z-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 5Z-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 5Z-4.</p>

Schedule 5Z-1
Enbridge Gas Community Expansion Project Proposal
Douglas

Douglas



Schedule 5Z-2
Enbridge Gas Community Expansion Project Proposal
Douglas

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	34	31	12	8	6	8	7	8	7	7	128
	-	9	5	1	1	-	-	-	-	-	16
	-	1	-	-	-	-	-	-	-	-	1
	-	4	1	1	1	-	-	-	-	-	7
	-	1	-	-	-	-	-	-	-	-	1
	34	46	18	10	8	8	7	8	7	7	153
	34	80	98	108	116	124	131	139	146	153	

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

Customer Type	Annual Volumes - m3										Total
Project Year	1	2	3	4	5	6	7	8	9	10	Total
Residential	40,800	118,800	170,400	194,400	211,200	228,000	246,000	264,000	282,000	298,800	2,054,400
Commercial	-	17,200	45,500	57,800	60,200	61,400	61,400	61,400	61,400	61,400	487,700
Institutional	-	25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	425,000
Agricultural	-	12,400	29,800	39,800	49,800	54,800	54,800	54,800	54,800	54,800	405,800
Industrial	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
Total Volumes	40,800	223,400	395,700	442,000	471,200	494,200	512,200	530,200	548,200	565,000	4,222,900

Customer Type	Cumulative Volumes - m3									
Project Year	1	2	3	4	5	6	7	8	9	10
Residential	40,800	159,600	330,000	524,400	735,600	963,600	1,209,600	1,473,600	1,755,600	2,054,400
Commercial	-	17,200	62,700	120,500	180,700	242,100	303,500	364,900	426,300	487,700
Institutional	-	25,000	75,000	125,000	175,000	225,000	275,000	325,000	375,000	425,000
Agricultural	-	12,400	42,200	82,000	131,800	186,600	241,400	296,200	351,000	405,800
Industrial	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000
Total Volumes	40,800	264,200	659,900	1,101,900	1,573,100	2,067,300	2,579,500	3,109,700	3,657,900	4,222,900

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

Total Capital Costs	Year 10

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Project Year	1	2	3	4	5	6	7	8	9	10	Total
Revenue Requirement											
Closing Rate Base (net of proposed Section 36.2 funding)	Year 10										

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project

\$12,756,909

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served

Year 10

\$83,378

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Volume (m3)

Year 10

\$22.58

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue		7,149	32,739	57,429	66,654	72,183	76,419	79,573	82,727	85,881	88,825	649,580
SES Revenue		9,384	51,382	91,011	101,660	108,376	113,666	117,806	121,946	126,086	129,950	971,267
Total Distribution Charge		16,533	84,121	148,440	168,314	180,559	190,085	197,379	204,673	211,967	218,775	1,620,847

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	Net Present Value
Cash Inflow	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
Cash Outflow	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 5Z-3
Enbridge Gas Community Expansion Project Proposal
Douglas

Section 3.4 Douglas

Total Forecasted Customers 153 Penetration Rate 65%

	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Existing Fuel / Heating Type											
Oil	32	21%	\$ 5,000	\$ 3,050	\$ 1,481	\$ 1,570	\$ 50,436	7.2	-2.7	230	(86)
Electricity F/A	14	9%	\$ 5,000	\$ 2,187	\$ 1,481	\$ 706	\$ 9,728	0.6	3.9	8	54
Electricity Baseboard	18	12%	\$ 12,000	\$ 2,187	\$ 1,481	\$ 706	\$ 12,970	0.6	3.9	11	72
Propane	67	44%	\$ 600	\$ 1,764	\$ 1,481	\$ 283	\$ 19,074	5.6	-1.1	376	(73)
Wood	14	9%	\$ 3,500	N/A	N/A	\$ -	N/A	NA	NA	NA	NA
Other	8	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	153	100%	\$ 31,100	\$ 9,188	\$ 5,923	\$ 3,266	\$ 92,208	13.9	4.1	625	(34)

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.

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.

	Emission 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)					
Consumption 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 m³ 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.

Schedule 5Z-4
Enbridge Gas Community Expansion Project Proposal
Douglas

Douglas Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 5Z-6
Enbridge Gas Community Expansion Project Proposal
Douglas

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

Schedule 6A
Enbridge Gas Community Expansion Project Proposal
Eganville

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

3.1

Redacted

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	23,824
Polyethylene	4	18,655
Polyethylene	6	9,644
Polyethylene	8	7,312

3.2	<p>Please refer to Schedule 6A-1 for Project Map.</p> <p>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.</p> <p>Please refer to Schedule 6A-2, Table 3.2.</p>
3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6A-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6A-3, Table 3.4.</p>

3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6A-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>No letter of support has been provided by the local government in time for this project submission.</p>
3.7	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>

4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6A-2, Table 4.2.</p>														
4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table><tr><td>Description</td><td>Year 1</td><td>Year 2...</td><td>Year 10</td><td>Total</td></tr><tr><td>Revenue Requirement</td><td></td><td></td><td></td><td></td></tr></table> <table><tr><td>Description</td><td>Year 10</td></tr><tr><td>Closing Rate Base</td><td></td></tr></table> <p>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).</p> <p>Please refer to Schedule 6A-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$26,169,413</p> <p>Please refer to Schedule 6A-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$38,827</p> <p>Please refer to Schedule 6A-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$9.32</p> <p>Please refer to Schedule 6A-2, Table 5.3.</p>

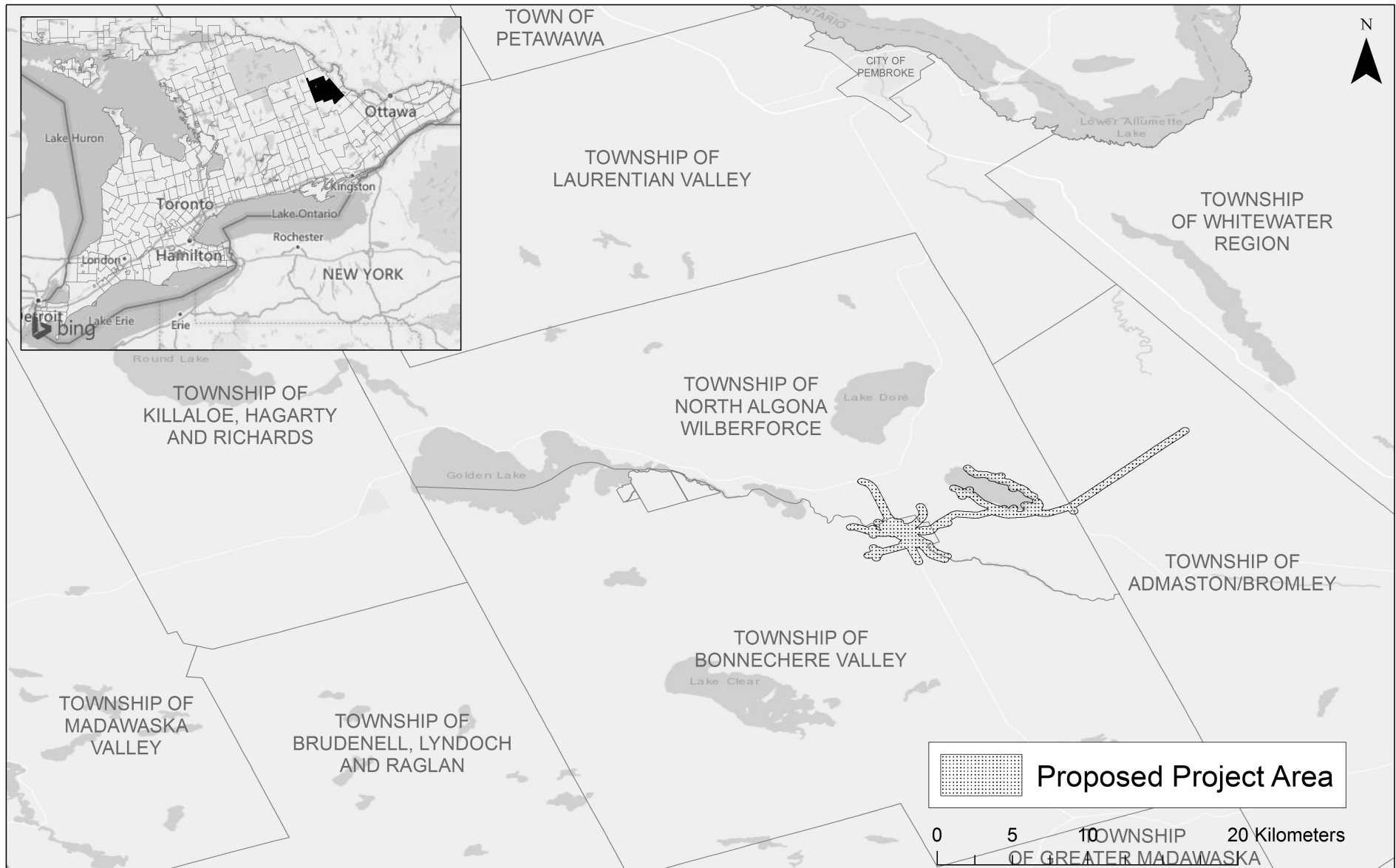
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the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

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6A-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6A-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • Franchise Agreements and Certificates of Public Convenience and Necessity (Township of Bonnechere Valley, Township of North Algona Wilberforce)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6A-4.</p>

Schedule 6A-1
Enbridge Gas Community Expansion Project Proposal
Eganville

Eganville



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

Table 3.2 - Customer Attachments Over The Rate Stability Period

<u>Customer Type</u>	<u>Firm / IT</u>	<u>Project Year</u>	<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)

<u>Customer Type</u>	<u>Project Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Annual Volumes - m3						<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>	

<u>Customer Type</u>	<u>Project Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Cumulative Volumes - m3						<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>	<u>4,257,546</u>	<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

	<u>Year 10</u>
Total Capital Costs	

Table 4.3 - Revenue Requirement Over The Rate Stability Period

	<u>Project Year</u>	<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>
Revenue Requirement												

	<u>Year 10</u>
Closing Rate Base (net of proposed Section 36.2 funding)	

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 26,169,413
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> \$ 38,827
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Volume (m3)	<u>Year 10</u> \$ 9.32
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Table 6.1 - Distribution Charge

	<u>Project Year</u>	<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>
Distribution Revenue	\$	32,575	129,267	218,684	258,460	284,646	308,278	331,069	353,860	373,564	388,710	\$ 2,679,114
SES Revenue		41,881	186,419	338,203	412,732	460,175	505,365	550,279	595,193	627,732	645,966	4,363,945
Total Distribution Charge	\$	<u>74,456</u>	<u>315,687</u>	<u>556,888</u>	<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>	<u>\$ 7,043,059</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

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

Section 3.4 Eganville

Total Forecasted Customers 674 Penetration Rate 65%

	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Existing Fuel / Heating Type											
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)

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.

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.

	Emission 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)					
Consumption 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 m³ 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.

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

Eganville Community Expansion Project Pipeline Construction Schedule

[illegible]

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

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

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

Schedule 6A-6
Enbridge Gas Community Expansion Project Proposal
Eganville

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

Schedule 6B
Enbridge Gas Community Expansion Project Proposal
Emsdale

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

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

Part II – Description of Proponent's Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to provide gas distribution service in the community of Emsdale within the Township of Perry. The proposed facilities will provide access to natural gas to a forecasted 185 customers (166 residential, 14 commercial / institutional and 5 industrial).

The proposed tie-in point will be near the intersection of _____ and _____ connecting to an existing 6" steel pipeline. The proposed distribution system will extend _____ on _____ to _____ and will cross _____ to Emsdale to include service to _____, _____, _____, _____, _____ and along _____.

A new distribution station will be required to serve the community.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	22,114

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	4	2,700

Please refer to Schedule 6B-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 6B-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6B-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6B-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6B-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>No letter of support has been provided by the local government in time for this project submission.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6B-6 for Enbridge's CPCN for the Township of Perry (EBC 191) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6B-2, Table 4.2.</p>

4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th>Description</th> <th>Year 1</th> <th>Year 2...</th> <th>Year 10</th> <th>Total</th> </tr> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th>Description</th> <th>Year 10</th> </tr> <tr> <td>Closing Rate Base</td> <td></td> </tr> </table> <p>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).</p> <p>Please refer to Schedule 6B-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$8,949,644</p> <p>Please refer to Schedule 6B-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$48,376</p> <p>Please refer to Schedule 6B-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$9.50</p> <p>Please refer to Schedule 6B-2, Table 5.3.</p>

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 6B-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6B-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6B-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6B-4.</p>

Schedule 6B-1
Enbridge Gas Community Expansion Project Proposal
Emsdale

Emsdale (Township of Perry)



Schedule 6B-2
Enbridge Gas Community Expansion Project Proposal
Emsdale

Table 3.2 - Customer Attachments Over The Rate Stability Period

<u>Customer Type</u>	<u>Firm / IT</u>
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

<u>Project Year</u>	<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>
	51	38	26	12	12	6	6	5	5	5	166
	-	7	3	2	1	-	-	-	-	-	13
	-	1	-	-	-	-	-	-	-	-	1
	-	-	-	-	-	-	-	-	-	-	-
	-	3	2	-	-	-	-	-	-	-	5
	<u>51</u>	<u>49</u>	<u>31</u>	<u>14</u>	<u>13</u>	<u>6</u>	<u>6</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>185</u>
	51	100	131	145	158	164	170	175	180	185	

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

<u>Customer Type</u>	<u>Annual Volumes - m3</u>										<u>Total</u>
<u>Project Year</u>	<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	55,139	151,436	220,554	261,393	287,152	306,311	318,870	330,649	341,649	352,649	2,625,800
Commercial	-	10,500	25,700	34,000	38,700	39,800	39,800	39,800	39,800	39,800	307,900
Institutional	-	25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	425,000
Agricultural	-	-	-	-	-	-	-	-	-	-	-
Industrial	-	150,000	400,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,050,000
Total Volumes	<u>55,139</u>	<u>336,936</u>	<u>696,254</u>	<u>845,393</u>	<u>875,852</u>	<u>896,111</u>	<u>908,670</u>	<u>920,449</u>	<u>931,449</u>	<u>942,449</u>	<u>7,408,700</u>

<u>Customer Type</u>	<u>Cumulative Volumes - m3</u>										
<u>Project Year</u>	<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	55,139	206,575	427,129	688,521	975,673	1,281,983	1,600,853	1,931,502	2,273,151	2,625,800	
Commercial	-	10,500	36,200	70,200	108,900	148,700	188,500	228,300	268,100	307,900	
Institutional	-	25,000	75,000	125,000	175,000	225,000	275,000	325,000	375,000	425,000	
Agricultural	-	-	-	-	-	-	-	-	-	-	
Industrial	-	150,000	550,000	1,050,000	1,550,000	2,050,000	2,550,000	3,050,000	3,550,000	4,050,000	
Total Volumes	<u>55,139</u>	<u>392,075</u>	<u>1,088,329</u>	<u>1,933,721</u>	<u>2,809,573</u>	<u>3,705,683</u>	<u>4,614,353</u>	<u>5,534,802</u>	<u>6,466,251</u>	<u>7,408,700</u>	

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

Total Capital Costs	<u>Year 10</u>

Table 4.3 - Revenue Requirement Over The Rate Stability Period

<u>Project Year</u>	<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>
Revenue Requirement											

Closing Rate Base (net of proposed Section 36.2 funding)	<u>Year 10</u>

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project

\$8,949,644

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served

Year 10

\$48,376

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)

Year 10

\$9.50

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	11,727	47,743	86,454	104,212	110,532	114,874	117,595	120,114	122,431	124,748	\$960,430
SES Revenue		12,682	77,495	160,138	194,440	201,446	206,105	208,994	211,703	214,233	216,763	1,704,001
Total Distribution Charge	\$	24,408	125,239	246,592	298,652	311,977	320,980	326,589	331,818	336,664	341,511	\$2,664,430

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	Net Present Value
Cash Inflow	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
Cash Outflow	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	1.00

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6B-3
Enbridge Gas Community Expansion Project Proposal
Emsdale

Section 3.4 Emsdale

Total Forecasted Customers 185 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	39	21%	\$ 5,000	\$ 2,787	\$ 1,495	\$ 1,292	\$ 50,198	6.6	-2.4	255	(94)
Electricity F/A	17	9%	\$ 5,000	\$ 1,998	\$ 1,495	\$ 503	\$ 8,373	0.5	3.6	9	60
Electricity Baseboard	22	12%	\$ 12,000	\$ 1,998	\$ 1,495	\$ 503	\$ 11,164	0.5	3.6	12	80
Propane	81	44%	\$ 600	\$ 1,611	\$ 1,495	\$ 116	\$ 9,464	5.1	-1.0	416	(80)
Wood	17	9%	\$ 3,500	N/A	N/A	\$ -	N/A	NA	NA	NA	NA
Other	9	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	185	100%	\$ 31,100	\$ 8,395	\$ 5,981	\$ 2,414	\$ 79,198	12.7	3.8	691	(35)

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.

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.

	Emission 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
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Emission Factor Sources:

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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 01 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.680
Heating oil	L	2397	Heating oil	\$/L	1.163
Electricity	kWh	17778	Electricity	\$/kWh	0.112
Propane	L	3309	Propane	\$/L	0.487

Notes:

Gas prices correspond to EGI (Union Gas North East) April 2020 rates, including 23 cents per m3 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 are currently unavailable for the Union North Rate zones.

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

Schedule 6B-4
Enbridge Gas Community Expansion Project Proposal
Emsdale

Emsdale Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6B-6
Enbridge Gas Community Expansion Project Proposal
Emsdale



IN THE MATTER OF the Ontario Energy Board Act, R.S.O. 1980, Chapter 332;

IN THE MATTER OF the Municipal Franchises Act, R.S.O. 1980, Chapter 309, Section 8 and amendments thereto;

AND IN THE MATTER OF an Application by ICG Utilities (Ontario) Ltd for a Certificate of Public Convenience and Necessity to construct works to supply and to supply gas in the Township of Perry, in the District of Parry Sound.

BEFORE: C. A. Wolf Jr.
Presiding Member

S. J. Wychowanec, Q.C.
Chairman

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

UPON ICG Utilities (Ontario) Ltd ("ICG") having filed an Application dated May 19, 1989 with the Ontario Energy Board ("the Board") for a Certificate of Public Convenience and Necessity to construct works to supply and to supply gas in the Township of Perry;

AND UPON Notice of Application having been served upon the Clerk of the Township of Perry and having been published as directed by the Board;

- 2 -

AND UPON Notice of Hearing having been issued and delivered to the Applicant by the Board;

AND UPON the Application having been heard in Toronto on September 20, 1989 in the presence of Counsel for ICG and for the Board;

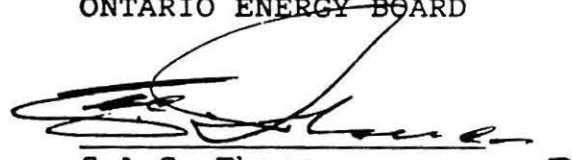
AND UPON the Board having issued an oral decision at the conclusion of the hearing, wherein the Board approved the Application;

IT IS THEREFORE ORDERED THAT:

1. A Certificate of Public Convenience and Necessity is hereby issued to ICG to construct works to supply and to supply gas in the Township of Perry.
2. ICG shall pay the costs of the Board forthwith after these are fixed.

ISSUED AT Toronto this 23rd day of November, 1989.

ONTARIO ENERGY BOARD



S.A.C. Thomas
Board Secretary

Schedule 6C
Enbridge Gas Community Expansion Project Proposal
Field

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

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

Part II – Description of Proponent's Technical Expertise and Financial Capability
<i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i>
<i>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.</i>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to provide gas distribution service in the community of Field within the Municipality of West Nipissing. The proposed facilities will provide access to natural gas to a forecasted 143 customers (131 residential, 11 commercial / institutional and 1 industrial).

The proposed tie-in point will be near the intersection of _____ and _____ connecting to an existing 12" steel pipeline. The proposed distribution system will extend _____ via _____ to West Nipissing (Field) and on to _____, _____ and then _____ to _____ and _____.

There will be no reinforcement required to accommodate additional loads for the system. A new station will be required in Field.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	7,840

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Steel	2	14,300

Please refer to Schedule 6C-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 6C-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6C-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6C-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6C-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>No letter of support has been provided by the local government in time for this project submission.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6C-6 for Enbridge's CPCN for the Municipality of West Nipissing (RP-2002-0119 / EB-2002-0344) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6C-2, Table 4.2.</p>

4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th style="text-align: left;">Description</th> <th style="text-align: center;">Year 1</th> <th style="text-align: center;">Year 2...</th> <th style="text-align: center;">Year 10</th> <th style="text-align: center;">Total</th> </tr> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th style="text-align: left;">Description</th> <th style="text-align: center;">Year 10</th> </tr> <tr> <td>Closing Rate Base</td> <td></td> </tr> </table> <p>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).</p> <p>Please refer to Schedule 6C-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$10,085,042</p> <p>Please refer to Schedule 6C-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$70,525</p> <p>Please refer to Schedule 6C-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$21.94</p> <p>Please refer to Schedule 6C-2, Table 5.3.</p>

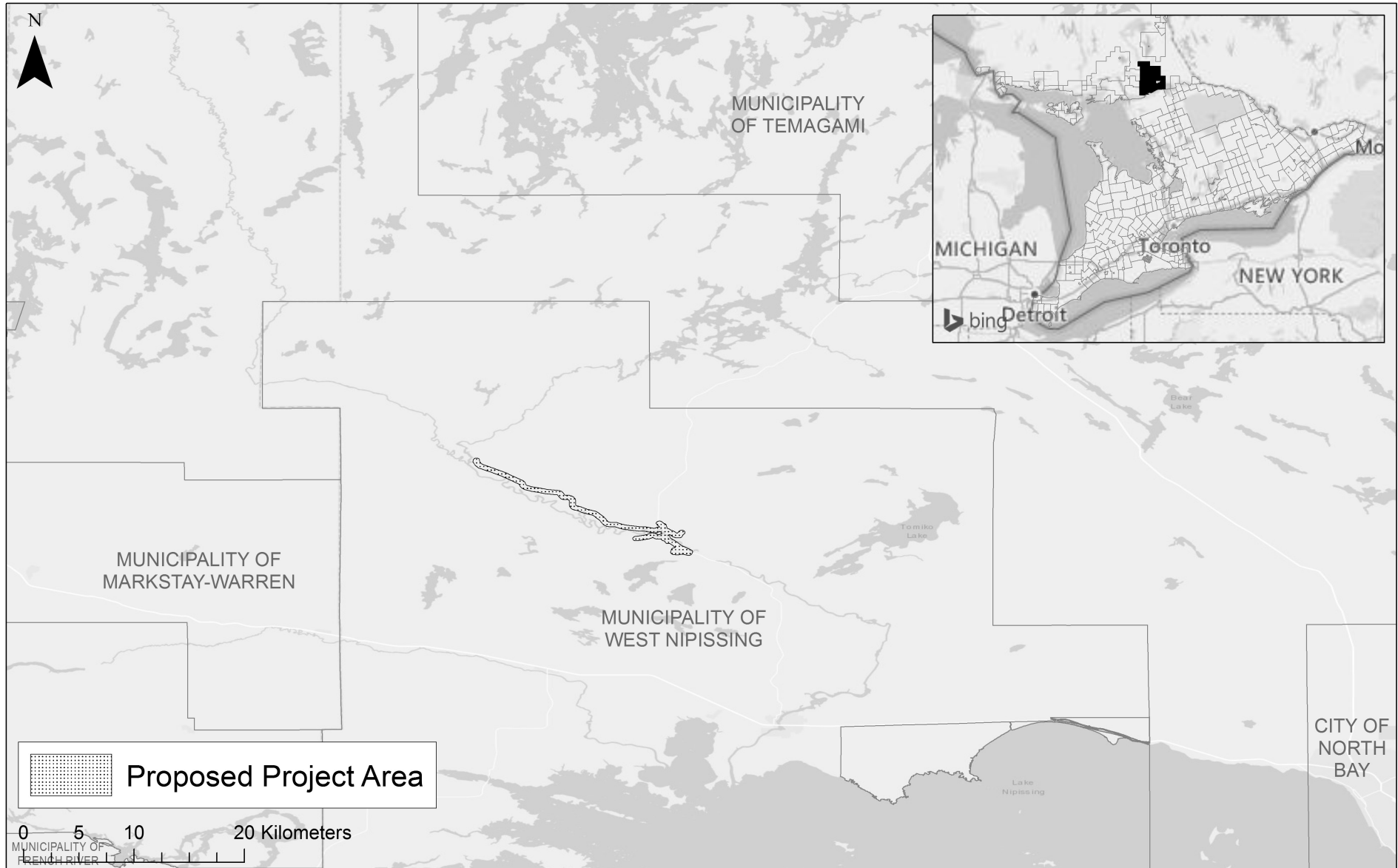
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the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

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6C-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6C-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6C-4.</p>

Schedule 6C-1
Enbridge Gas Community Expansion Project Proposal
Field

Field



Schedule 6C-2
Enbridge Gas Community Expansion Project Proposal
Field

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	40	30	21	10	10	4	4	4	4	4	131
	-	6	2	1	1	-	-	-	-	-	10
	-	1	-	-	-	-	-	-	-	-	1
	-	-	-	-	-	-	-	-	-	-	-
	-	1	-	-	-	-	-	-	-	-	1
	<u>40</u>	<u>38</u>	<u>23</u>	<u>11</u>	<u>11</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>143</u>
	40	78	101	112	123	127	131	135	139	143	

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

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Annual Volumes - m3		7	8	9	10	Total
	43,359	119,077	174,216	207,675	229,034	244,113	252,913	261,713	270,513	279,313	2,081,925
	-	9,400	22,400	27,100	29,300	30,400	30,400	30,400	30,400	30,400	240,200
	-	25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	425,000
	-	-	-	-	-	-	-	-	-	-	-
	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
	<u>43,359</u>	<u>203,477</u>	<u>346,616</u>	<u>384,775</u>	<u>408,334</u>	<u>424,513</u>	<u>433,313</u>	<u>442,113</u>	<u>450,913</u>	<u>459,713</u>	<u>3,597,125</u>

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Cumulative Volumes - m3		7	8	9	10	
	43,359	162,436	336,652	544,326	773,360	1,017,473	1,270,386	1,532,099	1,802,612	2,081,925	
	-	9,400	31,800	58,900	88,200	118,600	149,000	179,400	209,800	240,200	
	-	25,000	75,000	125,000	175,000	225,000	275,000	325,000	375,000	425,000	
	-	-	-	-	-	-	-	-	-	-	
	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000	
	<u>43,359</u>	<u>246,836</u>	<u>593,452</u>	<u>978,226</u>	<u>1,386,560</u>	<u>1,811,073</u>	<u>2,244,386</u>	<u>2,686,499</u>	<u>3,137,412</u>	<u>3,597,125</u>	

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

Total Capital Costs

[Year 10](#)

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

Project Year	1	2	3	4	5	6	7	8	9	10	Total
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[Year 10](#)

Closing Rate Base (net of proposed Section 36.2 funding)
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Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 10,085,042
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u><u>Year 10</u></u> \$ 70,525
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u><u>Year 10</u></u> \$ 21.94
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Table 6.1 - Distribution Charge

	<u>Project Year</u>	<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>
Distribution Revenue	\$	9,208	32,984	52,974	60,916	65,954	69,399	71,252	73,106	74,959	76,812	\$ 587,564
SES Revenue		9,973	46,800	79,722	88,498	93,917	97,638	99,662	101,686	103,710	105,734	827,339
Total Distribution Charge	\$	<u>19,180</u>	<u>79,783</u>	<u>132,696</u>	<u>149,414</u>	<u>159,870</u>	<u>167,037</u>	<u>170,914</u>	<u>174,792</u>	<u>178,669</u>	<u>182,546</u>	<u>\$ 1,414,902</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

<u>Cash Inflow</u>	<u>Net Present Value</u>	
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Proposed Section 36.2 Funding		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)		<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6C-3
Enbridge Gas Community Expansion Project Proposal
Field

Section 3.4 Field

Total Forecasted Customers 143 Penetration Rate 66%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	30	21%	\$ 5,000	\$ 2,787	\$ 1,495	\$ 1,292	\$ 38,801	6.6	-2.4	197	(73)
Electricity F/A	13	9%	\$ 5,000	\$ 1,998	\$ 1,495	\$ 503	\$ 6,472	0.5	3.6	7	46
Electricity Baseboard	17	12%	\$ 12,000	\$ 1,998	\$ 1,495	\$ 503	\$ 8,629	0.5	3.6	9	62
Propane	63	44%	\$ 600	\$ 1,611	\$ 1,495	\$ 116	\$ 7,315	5.1	-1.0	321	(62)
Wood	13	9%	\$ 3,500	N/A	N/A	\$ -	N/A	NA	NA	NA	NA
Other	7	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	143	100%	\$ 31,100	\$ 8,395	\$ 5,981	\$ 2,414	\$ 61,218	12.7	3.8	534	(27)

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.

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.

	Emission 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 01 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.680
Heating oil	L	2397	Heating oil	\$/L	1.163
Electricity	kWh	17778	Electricity	\$/kWh	0.112
Propane	L	3309	Propane	\$/L	0.487

Notes:

Gas prices correspond to EGI (Union Gas North East) April 2020 rates, including 23 cents per m3 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 are currently unavailable for the Union North Rate zones.

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

Schedule 6C-4
Enbridge Gas Community Expansion Project Proposal
Field

Field Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6C-6
Enbridge Gas Community Expansion Project Proposal
Field



RP-2002-0119
EB-2002-0333
EB-2002-0344

IN THE MATTER OF the *Municipal Franchises Act*,
R.S.O.1990, c. M.55, as amended;

AND IN THE MATTER OF an application by Union Gas Limited for an order approving the terms and conditions upon which the Corporation of the Municipality of West Nipissing is by by-law to grant Union Gas Limited the right to construct and operate works for the distribution of gas; the right to extend and add to the works; and the period for which such rights are granted;

AND IN THE MATTER OF an application by Union Gas Limited for an order dispensing with the assent of the municipal electors of the Municipality of West Nipissing to the by-law;

AND IN THE MATTER OF an application by Union Gas Limited for an order cancelling and replacing the existing Certificates of Public Convenience and Necessity with a single Certificate of Public Convenience and Necessity for the Corporation of the Municipality of West Nipissing.

BEFORE: Malcolm Jackson
Presiding Member

Ken McCann
Member

DECISION AND ORDER

Union Gas Limited ("Union") filed an application, dated March 22, 2002, (the "Application") with the Ontario Energy Board (the "Board") under the *Municipal Franchises Act*, R.S.O. 1990, c. M.55, as amended, for an order of the Board approving

- 2 -

the terms and conditions upon which and the period for which the Corporation of the Municipality of West Nipissing (the "Corporation"), is by by-law to grant to Union the right to construct and operate works for the distribution of gas, and to extend and add to the works in the Municipality of West Nipissing (the "Municipality"). The Board assigned File No. RP-2002-0119/EB-2002-0333 to this Application.

Union Gas Limited also applied for an order of the Board cancelling the existing Certificates of Public Convenience and Necessity and replacing them with a new Certificate of Public Convenience and Necessity which would include the area of the former municipalities which are now part of the Municipality of West Nipissing (the "Certificate Application"). The Board has assigned File No. RP-2002-0119/EB-2002-0344 to this Certificate Application.

Union also submitted a resolution, passed by the Council for the Corporation, approving the form of draft by-law (the "By-law"), authorizing the franchise agreement between Union and the Corporation (the "Franchise Agreement"), and requesting the Board to declare and direct, pursuant to subsection 9(4) of the Act, that the assent of the municipal electors to the By-law is not necessary.

The Board's Notice of Application was published on May 22, 2002. There were no intervenors. On September 20, 2002 the Board issued a Notice of Written Hearing. No party satisfied the Board that there was a good reason for not holding a written hearing.

Union is presently serving the Municipality and has Certificates of Public Convenience and Necessity (E.B.C. 115 Township of Caldwell, E.B.C. 240 Town of Cache Bay, F.B.C. 257 Town of Sturgeon Falls, E.B.C. 23 Township of Springer) for the Municipality. Union does not have a Certificate of Public Convenience and Necessity for that portion of the Municipality formerly known as the Township of Field nor for the portion of the Municipality formerly known as the unorganized Townships of Bertram, Latchford, Falconer, Loudon, Macpherson, Beaucage, Pedley, Kirkpatrick, Grant, Badgerow, Dana, McWilliams, Crerar, Gibbons, Bastedo, Fell, Hugel and part of Janes.

- 3 -

Effective January 1, 1999 the Township of Caldwell, the Town of Cache Bay, the Town of Sturgeon Falls, the Township of Springer and the Township of Field were amalgamated, and the unorganized Townships of Bertram, Latchford, Falconer, Loudon, Macpherson, Beaucage, Pedley, Kirkpatrick, Grant, Badgerow, Dana, McWilliams, Crerar, Gibbons, Bastedo, Fell, Hugel and part of Janes were annexed to form the Municipality of West Nipissing. The Board also notes that the Franchise Agreement is in the form of the 2000 Model Franchise Agreement approved by the Board as a standard form of franchise agreement.

The Board finds that, based on the evidence, granting the Applications is in the public interest.


THE BOARD THEREFORE ORDERS THAT:

1. The terms and conditions upon which, and the period for which, the Corporation of the Municipality of West Nipissing is, by by-law, to grant to Union Gas Limited the right to construct and operate works for the distribution of gas, and the right to extend and add to the works, as set out in the Franchise Agreement attached as Appendix A, are approved.
2. The assent of the municipal electors of the Municipality of West Nipissing to the By-law is not necessary.
3. The existing Certificates of Public Convenience and Necessity for the former municipalities of Township of Caldwell (E.B.C. 115), Town of Cache Bay (E.B.C. 240), Town of Sturgeon Falls (F.B.C. 257), Township of Springer (E.B.C. 23) are cancelled and replaced with a single Certificate of Public Convenience and Necessity for the amalgamated Municipality of West Nipissing (EB-2002-0344).

- 4 -

DATED at Toronto November 5, 2002

ONTARIO ENERGY BOARD


Paul B. Pudge
Board Secretary

Schedule 6D
Enbridge Gas Community Expansion Project Proposal
Hamilton (Alberton)

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

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

Part II – Description of Proponent's Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to expand its gas distribution system within the City of Hamilton to the community of Alberton. The proposed facilities will provide access to natural gas to a forecasted 17 customers (15 residential and 2 commercial / institutional).

The proposed project will tie-in to an existing 4" polyethylene pipe at the intersection of _____ and _____. The proposed facilities will run along _____, _____ and _____.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	3,300

Please refer to Schedule 6D-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 6D-2, Table 3.2.

3.3

Provide the annual and cumulative forecast of volumes (in m³) 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 m³ 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 6D-2, Table 3.3.

3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6D-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6D-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6D-5.</p>
3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6D-6 for Enbridge's CPCN for the City of Hamilton (EB-2006-0284) which covers the entire area of the proposed project.</p>

Part IV – Cost of Project															
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>														
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6D-2, Table 4.2.</p>														
4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1"> <thead> <tr> <th>Description</th> <th>Year 1</th> <th>Year 2...</th> <th>Year 10</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Description</th> <th>Year 10</th> </tr> </thead> <tbody> <tr> <td>Closing Rate Base</td> <td></td> </tr> </tbody> </table> <p>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).</p> <p>Please refer to Schedule 6D-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$1,531,806</p> <p>Please refer to Schedule 6D-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$90,106</p> <p>Please refer to Schedule 6D-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$38.10</p> <p>Please refer to Schedule 6D-2, Table 5.3.</p>

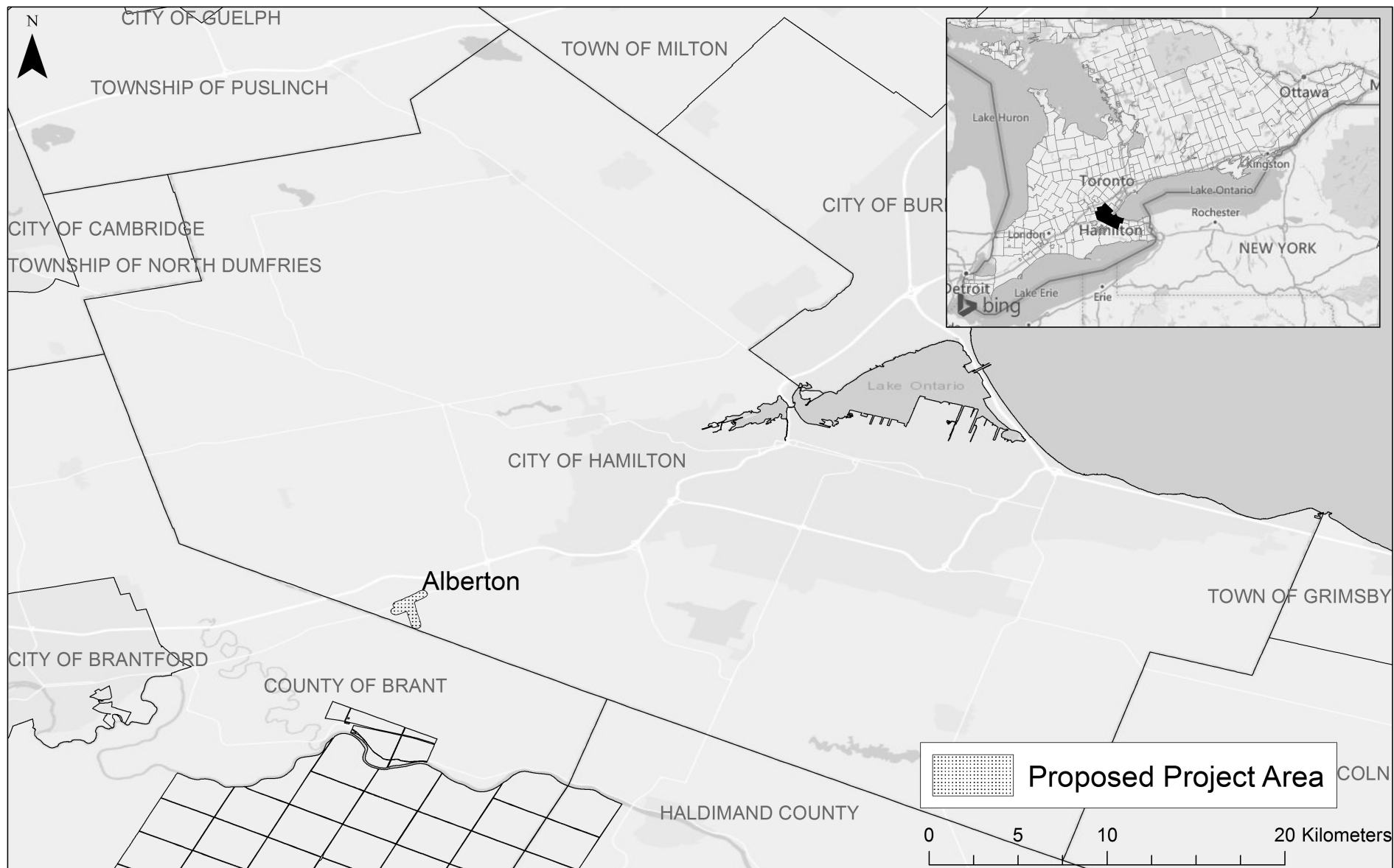
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the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

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6D-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6D-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6D-4.</p>

Schedule 6D-1
Enbridge Gas Community Expansion Project Proposal
Hamilton (Alberton)

City of Hamilton - Alberton



Schedule 6D-2
Enbridge Gas Community Expansion Project Proposal
Hamilton (Alberton)

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm/IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	5	3	2	1	1	1	1	1	-	-	15
	-	2	-	-	-	-	-	-	-	-	2
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	<u>5</u>	<u>5</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>17</u>
	5	10	12	13	14	15	16	17	17	17	

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

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Annual Volumes - m3		7	8	9	10	Total
	5,500	14,300	19,800	23,100	25,300	27,500	29,700	31,900	33,000	33,000	243,100
	-	3,600	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	61,200
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	<u>5,500</u>	<u>17,900</u>	<u>27,000</u>	<u>30,300</u>	<u>32,500</u>	<u>34,700</u>	<u>36,900</u>	<u>39,100</u>	<u>40,200</u>	<u>40,200</u>	<u>304,300</u>

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Cumulative Volumes - m3		7	8	9	10	
	5,500	19,800	39,600	62,700	88,000	115,500	145,200	177,100	210,100	243,100	
	-	3,600	10,800	18,000	25,200	32,400	39,600	46,800	54,000	61,200	
	-	-	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	
	<u>5,500</u>	<u>23,400</u>	<u>50,400</u>	<u>80,700</u>	<u>113,200</u>	<u>147,900</u>	<u>184,800</u>	<u>223,900</u>	<u>264,100</u>	<u>304,300</u>	

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

Total Capital Costs

[Year 10](#)

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

Project Year	1	2	3	4	5	6	7	8	9	10	Total
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[Year 10](#)

Closing Rate Base (net of proposed Section 36.2 funding)
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Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 1,531,806
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	Year 10 \$ 90,106
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	Year 10 \$ 38.10
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Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	817	2,489	3,671	4,161	4,488	4,815	5,141	5,468	5,631	5,631	\$ 42,312
SES Revenue		1,265	4,117	6,210	6,969	7,475	7,981	8,487	8,993	9,246	9,246	69,989
Total Distribution Charge	\$	<u>2,082</u>	<u>6,606</u>	<u>9,881</u>	<u>11,130</u>	<u>11,963</u>	<u>12,796</u>	<u>13,628</u>	<u>14,461</u>	<u>14,877</u>	<u>14,877</u>	<u>\$ 112,301</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

Cash Inflow

Revenue:

Distribution Revenue

System Expansion Surcharge (SES) Revenue

Total Revenue (A)

Expenses:

O&M Expense

Municipal Tax

Income Tax

Total Expenses (B)

Total Cash Inflow (C = A + B)

Cash Outflow

Gross Capital

Proposed Section 36.2 Funding

Change in Working Capital

Total Cash Outflow (D)

Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)

Net Present Value

1.00

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

	Net Present Value	
Cash Inflow		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
Cash Outflow		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6D-3
Enbridge Gas Community Expansion Project Proposal
Hamilton (Alberton)

Section 3.4 Alberton (City of Hamilton)

Total Forecasted Customers 17 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	4	21%	\$ 5,000	\$ 2,829	\$ 1,258	\$ 1,571	\$ 5,608	6.7	-2.5	24	(9)
Electricity F/A	2	9%	\$ 5,000	\$ 2,028	\$ 1,258	\$ 770	\$ 1,179	0.5	3.6	1	5
Electricity Baseboard	2	12%	\$ 12,000	\$ 1,626	\$ 1,258	\$ 368	\$ 751	0.5	3.6	1	7
Propane	7	44%	\$ 600	\$ 1,626	\$ 1,258	\$ 368	\$ 2,752	5.2	-1.1	39	(8)
Wood	2	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	1	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	17	100%	\$ 31,100	\$ 8,109	\$ 5,031	\$ 3,077	\$ 10,290	12.9	3.6	64	(4)

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.

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.

	Emission 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 M1 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.572
Heating oil	L	2433	Heating oil	\$/L	1.163
Electricity	kWh	18046	Electricity	\$/kWh	0.112
Propane	L	3359	Propane	\$/L	0.484

Notes:

Gas prices correspond to EGI (Union Gas South) April 2020 rates, including 23 cents per m3 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

South Propane prices correspond to the latest available montly average EDPRO residential rates for Zone 1 (March 2020).

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

Schedule 6D-4
Enbridge Gas Community Expansion Project Proposal
Hamilton (Alberton)

Hamilton (Alberton) Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6D-5
Enbridge Gas Community Expansion Project Proposal
Hamilton (Alberton)



Hamilton

City Hall, 71 Main Street West
Hamilton, Ontario,
Canada L8P 4Y5
www.hamilton.ca

Alvin Chan, Manager, Legislative Approvals / Staging of Development
Planning and Economic Development Department
Growth Management Division
71 Main Street West, 6th Floor, Hamilton, ON L8P 4Y5
Phone: 905.546.2424 Ext. 2978 Fax: 905.540-5611
Email: Alvin.chan@hamilton.ca

June 5, 2020

Enbridge Gas Inc.
50 Keil Drive North,
Chatham, ON, Canada
N7M 5M1

Attention: Wayne Passmore

**RE: City of Hamilton ("City") Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
("Projects") for submission to the Ontario Energy Board; and, the Ministry of
Energy Natural Gas Expansion Program**

Dear Wayne,

The City's interest in the five individual Projects relates to how it may impact the environmental and financial well-being of the municipality, as well as the health, safety and well-being of its inhabitants.

In review of these Projects for the expansion of natural gas services by Enbridge Gas Inc., to the Airport Employment Growth District and Red Hill Business Parks; and, the rural settlement areas of Rockton; Westover; Sheffield; and Alberton, be submitted to the Ontario Energy Board for application under the Ministry of Energy Natural Gas Expansion Program.

Accordingly, as per the Program Guidelines, **the City supports the expansion of natural gas services to the Airport Employment Growth District and Red Hill Business Parks; and, to the rural settlement areas of Rockton; Westover; Sheffield; and, Alberton. However, the City is not in a position to make any financial contributions to this Project**, as per the rationale documented below:

Rationale for No Financial Contribution:

Financial Concerns:

Staff was unable to document the financial implications of the individual Projects and requests for Financial Contribution, due to internal deadlines and availability of Council meetings.

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
 (“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

As such, the City was not provided sufficient time to complete a thorough financial analysis and evaluation of the potential implications of making a financial contribution to these projects.

In particular, albeit the City did receive mapping from Enbridge Gas Inc, additional information, including but not limited to, the type, length, and diameter of the pipeline, and the rate applied for property assessment purposes would be required together in consultation with the Municipal Property Assessment Corporation (MPAC) in order to validate the estimated property tax figure.

Natural Heritage Concerns; Source Water Protection Concerns; Cultural and Built Heritage Concerns; Municipal Infrastructure Concerns; Climate Emergency; and, Emergency Response.

In discussion with Enbridge Gas Inc., the preferred options and optimal route have not yet been established and will be completed should the Ministry approve a Grant for any of the five individual projects.

Accordingly, the City requests the opportunity under any project, to review and comment on any proposed options and / or routes; and potential conditions of approval, as part of any approval process, including, but not limited to, applications before the Ontario Energy Board.

Lastly, in the absence of a preferred option or route, the City was not provided sufficient time to evaluate partnering and the timing of project construction, in order to leverage other municipal works occurring along the same corridor for any of these projects.

Should you have any questions, please do not hesitate to contact the undersigned.

Sincerely,



Alvin Chan, BES, MCIP, RPP
Manager, Legislative Approvals/Staging of Development
Growth Management Division
Planning and Economic Development Department
71 Main Street West, 6th Floor
Hamilton, ON, L8P 4Y5
905-546-2424 Ext 2978
alvin.chan@hamilton.ca

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
 (“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

C.C. Jason Thorne, General Manager, Planning and Economic Development Department
Tony Sergi, Senior Director, Growth Management Division
Norm Schleeahn, Director, Economic Development Division
Guy Paparella, Special Projects Manager, Growth Management Division
Sue Rimac, Business Development Consultant, Economic Development Division
Jennifer Patterson, Senior Business Development Consultant, Economic Development Division
Councilor Brenda Johnson (Ward 11)
Councilor Lloyd Ferguson (Ward 12)
Councilor Arlene Vanderbeek (Ward 13)

Schedule 6D-6
Enbridge Gas Community Expansion Project Proposal
Hamilton (Alberton)

EB-2006-0284

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Union Gas Limited

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 City of Hamilton

This certificate replaces the certificates of the former municipalities that are now within the City of Hamilton.

DATED at Toronto, February 6, 2007

ONTARIO ENERGY BOARD

Original signed by

Mark C. Garner
Managing Director, Market Operations

Schedule 6E
Enbridge Gas Community Expansion Project Proposal
Hamilton (Rockton)

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1
Redacted

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.

Enbridge Gas is proposing to expand its gas distribution system within the City of Hamilton to the community of Rockton. The proposed facilities will provide access to natural gas to a forecasted 121 customers (103 residential, 17 commercial / institutional and 1 industrial).

The proposed project will have two tie-in points – one near the intersection of _____ and _____ connecting to an existing 4" polyethylene pipe and one that will be _____ on _____ connecting to an existing 4" polyethylene pipe.

The proposed distribution system will extend ____ via _____ of _____ to _____, _____ and _____ towards _____.

A reinforcement segment (1,700 m of 4" steel pipe) will be required to accommodate additional loads for the system and will be installed near the intersection of _____ and _____ of Hamilton.

No new station(s) or any station modifications required.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	7,700

The approximate length and size of the reinforcement required:

Pipe Type	Diameter (NPS)	Length (m)
Steel	4	1,700

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	4	3,700

Please refer to Schedule 6E-1 for Project Map.

3.2	<p>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.</p> <p>Please refer to Schedule 6E-2, Table 3.2.</p>
3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6E-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6E-3, Table 3.4.</p>

3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6E-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6E-5.</p>
3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6E-6 for Enbridge's CPCN for the City of Hamilton (EB-2006-0284) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>

4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6E-2, Table 4.2.</p>														
4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1"> <tr> <th>Description</th> <th>Year 1</th> <th>Year 2...</th> <th>Year 10</th> <th>Total</th> </tr> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <table border="1"> <tr> <th>Description</th> <th>Year 10</th> </tr> <tr> <td>Closing Rate Base</td> <td></td> </tr> </table> <p>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).</p> <p>Please refer to Schedule 6E-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$5,716,530</p> <p>Please refer to Schedule 6E-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$47,244</p> <p>Please refer to Schedule 6E-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$12.82</p> <p>Please refer to Schedule 6E-2, Table 5.3.</p>

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 6E-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6E-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6E-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6E-4.</p>

Schedule 6E-1
Enbridge Gas Community Expansion Project Proposal
Hamilton (Rockton)

Rockton



Schedule 6E-2
Enbridge Gas Community Expansion Project Proposal
Hamilton (Rockton)

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	32	24	16	8	8	3	3	3	3	3	103
	-	8	2	1	1	1	-	-	-	-	13
	-	-	-	-	-	-	-	-	-	-	-
	-	4	-	-	-	-	-	-	-	-	4
	-	1	-	-	-	-	-	-	-	-	1
	<u>32</u>	<u>37</u>	<u>18</u>	<u>9</u>	<u>9</u>	<u>4</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>121</u>
	32	69	87	96	105	109	112	115	118	121	

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

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Annual Volumes - m3		7	8	9	10	Total
	35,200	96,800	140,800	167,200	184,800	196,900	203,500	210,100	216,700	223,300	1,675,300
	-	19,400	42,400	47,100	49,300	51,500	52,600	52,600	52,600	52,600	420,100
	-	-	-	-	-	-	-	-	-	-	-
	-	35,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	595,000
	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
	<u>35,200</u>	<u>201,200</u>	<u>353,200</u>	<u>384,300</u>	<u>404,100</u>	<u>418,400</u>	<u>426,100</u>	<u>432,700</u>	<u>439,300</u>	<u>445,900</u>	<u>3,540,400</u>

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Cumulative Volumes - m3		7	8	9	10	
	35,200	132,000	272,800	440,000	624,800	821,700	1,025,200	1,235,300	1,452,000	1,675,300	
	-	19,400	61,800	108,900	158,200	209,700	262,300	314,900	367,500	420,100	
	-	-	-	-	-	-	-	-	-	-	
	-	35,000	105,000	175,000	245,000	315,000	385,000	455,000	525,000	595,000	
	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000	
	<u>35,200</u>	<u>236,400</u>	<u>589,600</u>	<u>973,900</u>	<u>1,378,000</u>	<u>1,796,400</u>	<u>2,222,500</u>	<u>2,655,200</u>	<u>3,094,500</u>	<u>3,540,400</u>	

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

Total Capital Costs

[Year 10](#)

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

Project Year	1	2	3	4	5	6	7	8	9	10	Total
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[Year 10](#)

Closing Rate Base (net of proposed Section 36.2 funding)
--

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 5,716,530
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u><u>\$ Year 10 47,244</u></u>
---	---

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u><u>\$ Year 10 12.82</u></u>
---	--

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	5,226	19,236	30,999	35,448	38,388	40,511	41,654	42,634	43,614	44,594	\$ 342,304
SES Revenue		8,096	46,276	81,236	88,389	92,943	96,232	98,003	99,521	101,039	102,557	814,292
Total Distribution Charge	\$	<u>13,322</u>	<u>65,512</u>	<u>112,235</u>	<u>123,837</u>	<u>131,331</u>	<u>136,743</u>	<u>139,657</u>	<u>142,155</u>	<u>144,653</u>	<u>147,151</u>	<u>\$ 1,156,596</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

<u>Cash Inflow</u>	<u>Net Present Value</u>	
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Proposed Section 36.2 Funding		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)		<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6E-3
Enbridge Gas Community Expansion Project Proposal
Hamilton (Rockton)

Section 3.4 Rockton (City of Hamilton)

Total Forecasted Customers 121 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	25	21%	\$ 5,000	\$ 2,829	\$ 1,258	\$ 1,571	\$ 39,919	6.7	-2.5	169	(64)
Electricity F/A	11	9%	\$ 5,000	\$ 2,028	\$ 1,258	\$ 770	\$ 8,390	0.5	3.6	6	39
Electricity Baseboard	15	12%	\$ 12,000	\$ 1,626	\$ 1,258	\$ 368	\$ 5,342	0.5	3.6	8	52
Propane	53	44%	\$ 600	\$ 1,626	\$ 1,258	\$ 368	\$ 19,588	5.2	-1.1	276	(56)
Wood	11	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	6	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	121	100%	\$ 31,100	\$ 8,109	\$ 5,031	\$ 3,077	\$ 73,239	12.9	3.6	459	(30)

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.

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.

	Emission 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 M1 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.572
Heating oil	L	2433	Heating oil	\$/L	1.163
Electricity	kWh	18046	Electricity	\$/kWh	0.112
Propane	L	3359	Propane	\$/L	0.484

Notes:

Gas prices correspond to EGI (Union Gas South) April 2020 rates, including 23 cents per m3 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

South Propane prices correspond to the latest available montly average EDPRO residential rates for Zone 1 (March 2020).

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

Schedule 6E-4
Enbridge Gas Community Expansion Project Proposal
Hamilton (Rockton)

Hamilton (Rockton) Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6E-5
Enbridge Gas Community Expansion Project Proposal
Hamilton (Rockton)



City Hall, 71 Main Street West
Hamilton, Ontario,
Canada L8P 4Y5
www.hamilton.ca

Alvin Chan, Manager, Legislative Approvals / Staging of Development
Planning and Economic Development Department
Growth Management Division
71 Main Street West, 6th Floor, Hamilton, ON L8P 4Y5
Phone: 905.546.2424 Ext. 2978 Fax: 905.540-5611
Email: Alvin.chan@hamilton.ca

Hamilton

June 5, 2020

Enbridge Gas Inc.
50 Keil Drive North,
Chatham, ON, Canada
N7M 5M1

Attention: Wayne Passmore

**RE: City of Hamilton ("City") Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
("Projects") for submission to the Ontario Energy Board; and, the Ministry of
Energy Natural Gas Expansion Program**

Dear Wayne,

The City's interest in the five individual Projects relates to how it may impact the environmental and financial well-being of the municipality, as well as the health, safety and well-being of its inhabitants.

In review of these Projects for the expansion of natural gas services by Enbridge Gas Inc., to the Airport Employment Growth District and Red Hill Business Parks; and, the rural settlement areas of Rockton; Westover; Sheffield; and Alberton, be submitted to the Ontario Energy Board for application under the Ministry of Energy Natural Gas Expansion Program.

Accordingly, as per the Program Guidelines, **the City supports the expansion of natural gas services to the Airport Employment Growth District and Red Hill Business Parks; and, to the rural settlement areas of Rockton; Westover; Sheffield; and, Alberton. However, the City is not in a position to make any financial contributions to this Project**, as per the rationale documented below:

Rationale for No Financial Contribution:

Financial Concerns:

Staff was unable to document the financial implications of the individual Projects and requests for Financial Contribution, due to internal deadlines and availability of Council meetings.

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
 (“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

As such, the City was not provided sufficient time to complete a thorough financial analysis and evaluation of the potential implications of making a financial contribution to these projects.

In particular, albeit the City did receive mapping from Enbridge Gas Inc, additional information, including but not limited to, the type, length, and diameter of the pipeline, and the rate applied for property assessment purposes would be required together in consultation with the Municipal Property Assessment Corporation (MPAC) in order to validate the estimated property tax figure.

Natural Heritage Concerns; Source Water Protection Concerns; Cultural and Built Heritage Concerns; Municipal Infrastructure Concerns; Climate Emergency; and, Emergency Response.

In discussion with Enbridge Gas Inc., the preferred options and optimal route have not yet been established and will be completed should the Ministry approve a Grant for any of the five individual projects.

Accordingly, the City requests the opportunity under any project, to review and comment on any proposed options and / or routes; and potential conditions of approval, as part of any approval process, including, but not limited to, applications before the Ontario Energy Board.

Lastly, in the absence of a preferred option or route, the City was not provided sufficient time to evaluate partnering and the timing of project construction, in order to leverage other municipal works occurring along the same corridor for any of these projects.

Should you have any questions, please do not hesitate to contact the undersigned.

Sincerely,



Alvin Chan, BES, MCIP, RPP
Manager, Legislative Approvals/Staging of Development
Growth Management Division
Planning and Economic Development Department
71 Main Street West, 6th Floor
Hamilton, ON, L8P 4Y5
905-546-2424 Ext 2978
alvin.chan@hamilton.ca

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
 (“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

C.C. Jason Thorne, General Manager, Planning and Economic Development Department
Tony Sergi, Senior Director, Growth Management Division
Norm Schleeahn, Director, Economic Development Division
Guy Paparella, Special Projects Manager, Growth Management Division
Sue Rimac, Business Development Consultant, Economic Development Division
Jennifer Patterson, Senior Business Development Consultant, Economic Development Division
Councilor Brenda Johnson (Ward 11)
Councilor Lloyd Ferguson (Ward 12)
Councilor Arlene Vanderbeek (Ward 13)

Schedule 6E-6
Enbridge Gas Community Expansion Project Proposal
Hamilton (Rockton)

EB-2006-0284

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Union Gas Limited

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 City of Hamilton

This certificate replaces the certificates of the former municipalities that are now within the City of Hamilton.

DATED at Toronto, February 6, 2007

ONTARIO ENERGY BOARD

Original signed by

Mark C. Garner
Managing Director, Market Operations

Schedule 6F
Enbridge Gas Community Expansion Project Proposal
Hamilton (Sheffield)

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to expand its gas distribution system within the City of Hamilton to the community of Sheffield. The proposed facilities will provide access to natural gas to a forecasted 65 customers (59 residential, 5 commercial / institutional and 1 intensive agriculture).

The proposed project will have a tie-in point near the intersection of _____ and _____ connecting to an existing 4" steel pipeline. The proposed distribution system will extend _____, _____ and _____.

There will be no reinforcement required to accommodate additional loads for the system. An existing station will require higher outlet pressure for additional loads.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	5,250

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	4	2,735

Please refer to Schedule 6F-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 6F-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6F-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6F-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6F-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6F-5.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6F-6 for Enbridge's CPCN for the City of Hamilton (EB-2006-0284) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6F-2, Table 4.2.</p>

4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1"> <tr> <th>Description</th> <th>Year 1</th> <th>Year 2...</th> <th>Year 10</th> <th>Total</th> </tr> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <table border="1"> <tr> <th>Description</th> <th>Year 10</th> </tr> <tr> <td>Closing Rate Base</td> <td></td> </tr> </table> <p>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).</p> <p>Please refer to Schedule 6F-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															
<p>Part V – Section 36.2 Funding</p>															
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$3,688,318</p> <p>Please refer to Schedule 6F-2, Table 5.1.</p>														
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$56,743</p> <p>Please refer to Schedule 6F-2, Table 5.2.</p>														
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$24.09</p> <p>Please refer to Schedule 6F-2, Table 5.3.</p>														

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 6F-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6F-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6F-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6F-4.</p>

Schedule 6F-1
Enbridge Gas Community Expansion Project Proposal
Hamilton (Sheffield)

Sheffield



Schedule 6F-2
Enbridge Gas Community Expansion Project Proposal
Hamilton (Sheffield)

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	16	14	5	4	3	4	3	4	3	3	59
	-	5	-	-	-	-	-	-	-	-	5
	-	-	-	-	-	-	-	-	-	-	-
	-	1	-	-	-	-	-	-	-	-	1
	-	-	-	-	-	-	-	-	-	-	-
	<u>16</u>	<u>20</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>3</u>	<u>65</u>
	16	36	41	45	48	52	55	59	62	65	

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

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Annual Volumes - m3		7	8	9	10	Total
	17,600	50,600	71,500	81,400	89,100	96,800	104,500	112,200	119,900	126,500	870,100
	-	12,200	24,400	24,400	24,400	24,400	24,400	24,400	24,400	24,400	207,400
	-	-	-	-	-	-	-	-	-	-	-
	-	1,100	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	18,700
	-	-	-	-	-	-	-	-	-	-	-
	<u>17,600</u>	<u>63,900</u>	<u>98,100</u>	<u>108,000</u>	<u>115,700</u>	<u>123,400</u>	<u>131,100</u>	<u>138,800</u>	<u>146,500</u>	<u>153,100</u>	<u>1,096,200</u>

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Cumulative Volumes - m3		7	8	9	10	
	17,600	68,200	139,700	221,100	310,200	407,000	511,500	623,700	743,600	870,100	
	-	12,200	36,600	61,000	85,400	109,800	134,200	158,600	183,000	207,400	
	-	-	-	-	-	-	-	-	-	-	
	-	1,100	3,300	5,500	7,700	9,900	12,100	14,300	16,500	18,700	
	-	-	-	-	-	-	-	-	-	-	
	<u>17,600</u>	<u>81,500</u>	<u>179,600</u>	<u>287,600</u>	<u>403,300</u>	<u>526,700</u>	<u>657,800</u>	<u>796,600</u>	<u>943,100</u>	<u>1,096,200</u>	

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

Total Capital Costs

[Year 10](#)

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

Project Year	1	2	3	4	5	6	7	8	9	10	Total

[Year 10](#)

Closing Rate Base (net of proposed Section 36.2 funding)
--

--

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 3,688,318
--	--------------

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> \$ 56,743
---	---

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u>Year 10</u> \$ 24.09
---	--

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	2,613	8,678	12,947	14,417	15,560	16,703	17,846	18,989	20,133	21,113	\$ 148,998
SES Revenue		4,048	14,697	22,563	24,840	26,611	28,382	30,153	31,924	33,695	35,213	252,126
Total Distribution Charge	\$	<u>6,661</u>	<u>23,375</u>	<u>35,510</u>	<u>39,257</u>	<u>42,171</u>	<u>45,085</u>	<u>47,999</u>	<u>50,913</u>	<u>53,828</u>	<u>56,326</u>	<u>\$ 401,124</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6F-3
Enbridge Gas Community Expansion Project Proposal
Hamilton (Sheffield)

Section 3.4 Sheffield (City of Hamilton)

Total Forecasted Customers 65 Penetration Rate 53%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	22	34%	\$ 5,000	\$ 2,829	\$ 1,258	\$ 1,571	\$ 34,587	6.7	-2.5	146	(56)
Electricity F/A	2	3%	\$ 5,000	\$ 2,028	\$ 1,258	\$ 770	\$ 1,615	0.5	3.6	1	8
Electricity Baseboard	1	2%	\$ 12,000	\$ 1,626	\$ 1,258	\$ 368	\$ 386	0.5	3.6	1	4
Propane	34	52%	\$ 600	\$ 1,626	\$ 1,258	\$ 368	\$ 12,343	5.2	-1.1	174	(36)
Wood	4	6%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	2	3%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	65	100%	\$ 31,100	\$ 8,109	\$ 5,031	\$ 3,077	\$ 48,931	12.9	3.6	322	(80)

1 Based on completed Market Research for this community. Fuel percentages may not add up to 100% due to rounding error.

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.

	Emission 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 M1 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.572
Heating oil	L	2433	Heating oil	\$/L	1.163
Electricity	kWh	18046	Electricity	\$/kWh	0.112
Propane	L	3359	Propane	\$/L	0.484

Notes:

Gas prices correspond to EGI (Union Gas South) April 2020 rates, including 23 cents per m3 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

South Propane prices correspond to the latest available montly average EDPRO residential rates for Zone 1 (March 2020).

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

Schedule 6F-4
Enbridge Gas Community Expansion Project Proposal
Hamilton (Sheffield)

Hamilton (Sheffield) Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6F-5
Enbridge Gas Community Expansion Project Proposal
Hamilton (Sheffield)



City Hall, 71 Main Street West
Hamilton, Ontario,
Canada L8P 4Y5
www.hamilton.ca

Alvin Chan, Manager, Legislative Approvals / Staging of Development
Planning and Economic Development Department
Growth Management Division
71 Main Street West, 6th Floor, Hamilton, ON L8P 4Y5
Phone: 905.546.2424 Ext. 2978 Fax: 905.540-5611
Email: Alvin.chan@hamilton.ca

Hamilton

June 5, 2020

Enbridge Gas Inc.
50 Keil Drive North,
Chatham, ON, Canada
N7M 5M1

Attention: Wayne Passmore

**RE: City of Hamilton ("City") Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
("Projects") for submission to the Ontario Energy Board; and, the Ministry of
Energy Natural Gas Expansion Program**

Dear Wayne,

The City's interest in the five individual Projects relates to how it may impact the environmental and financial well-being of the municipality, as well as the health, safety and well-being of its inhabitants.

In review of these Projects for the expansion of natural gas services by Enbridge Gas Inc., to the Airport Employment Growth District and Red Hill Business Parks; and, the rural settlement areas of Rockton; Westover; Sheffield; and Alberton, be submitted to the Ontario Energy Board for application under the Ministry of Energy Natural Gas Expansion Program.

Accordingly, as per the Program Guidelines, **the City supports the expansion of natural gas services to the Airport Employment Growth District and Red Hill Business Parks; and, to the rural settlement areas of Rockton; Westover; Sheffield; and, Alberton. However, the City is not in a position to make any financial contributions to this Project**, as per the rationale documented below:

Rationale for No Financial Contribution:

Financial Concerns:

Staff was unable to document the financial implications of the individual Projects and requests for Financial Contribution, due to internal deadlines and availability of Council meetings.

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
(“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

As such, the City was not provided sufficient time to complete a thorough financial analysis and evaluation of the potential implications of making a financial contribution to these projects.

In particular, albeit the City did receive mapping from Enbridge Gas Inc, additional information, including but not limited to, the type, length, and diameter of the pipeline, and the rate applied for property assessment purposes would be required together in consultation with the Municipal Property Assessment Corporation (MPAC) in order to validate the estimated property tax figure.

Natural Heritage Concerns; Source Water Protection Concerns; Cultural and Built Heritage Concerns; Municipal Infrastructure Concerns; Climate Emergency; and, Emergency Response.

In discussion with Enbridge Gas Inc., the preferred options and optimal route have not yet been established and will be completed should the Ministry approve a Grant for any of the five individual projects.

Accordingly, the City requests the opportunity under any project, to review and comment on any proposed options and / or routes; and potential conditions of approval, as part of any approval process, including, but not limited to, applications before the Ontario Energy Board.

Lastly, in the absence of a preferred option or route, the City was not provided sufficient time to evaluate partnering and the timing of project construction, in order to leverage other municipal works occurring along the same corridor for any of these projects.

Should you have any questions, please do not hesitate to contact the undersigned.

Sincerely,



Alvin Chan, BES, MCIP, RPP
Manager, Legislative Approvals/Staging of Development
Growth Management Division
Planning and Economic Development Department
71 Main Street West, 6th Floor
Hamilton, ON, L8P 4Y5
905-546-2424 Ext 2978
alvin.chan@hamilton.ca

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
 (“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

C.C. Jason Thorne, General Manager, Planning and Economic Development Department
Tony Sergi, Senior Director, Growth Management Division
Norm Schleeahn, Director, Economic Development Division
Guy Paparella, Special Projects Manager, Growth Management Division
Sue Rimac, Business Development Consultant, Economic Development Division
Jennifer Patterson, Senior Business Development Consultant, Economic Development Division
Councilor Brenda Johnson (Ward 11)
Councilor Lloyd Ferguson (Ward 12)
Councilor Arlene Vanderbeek (Ward 13)

Schedule 6F-6
Enbridge Gas Community Expansion Project Proposal
Hamilton (Sheffield)

EB-2006-0284

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Union Gas Limited

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 City of Hamilton

This certificate replaces the certificates of the former municipalities that are now within the City of Hamilton.

DATED at Toronto, February 6, 2007

ONTARIO ENERGY BOARD

Original signed by

Mark C. Garner
Managing Director, Market Operations

Schedule 6G
Enbridge Gas Community Expansion Project Proposal
Hamilton (Westover)

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to expand its gas distribution system within the City of Hamilton to the community of Westover. The proposed facilities will provide access to natural gas to a forecasted 80 customers (75 residential, 3 commercial / institutional and 2 industrial).

The proposed project will tie-in to an existing 2" polyethylene pipe at the intersection of _____ and _____. The proposed distribution system will extend _____ and will partially branch on to _____ and _____.

There are 2 reinforcement segments (250 m of 4" steel pipe and 1,250 m of 4" polyethylene pipe) required to accommodate additional loads for the system. No distribution station upgrades will be required.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	6,400

The approximate length and size of the reinforcement required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	4	1,250
Steel	4	250

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	4	1,215

Please refer to Schedule 6G-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 6G-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6G-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6G-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6G-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6G-5.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6G-6 for Enbridge's CPCN for the City of Hamilton (EB-2006-0284) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6G-2, Table 4.2.</p>

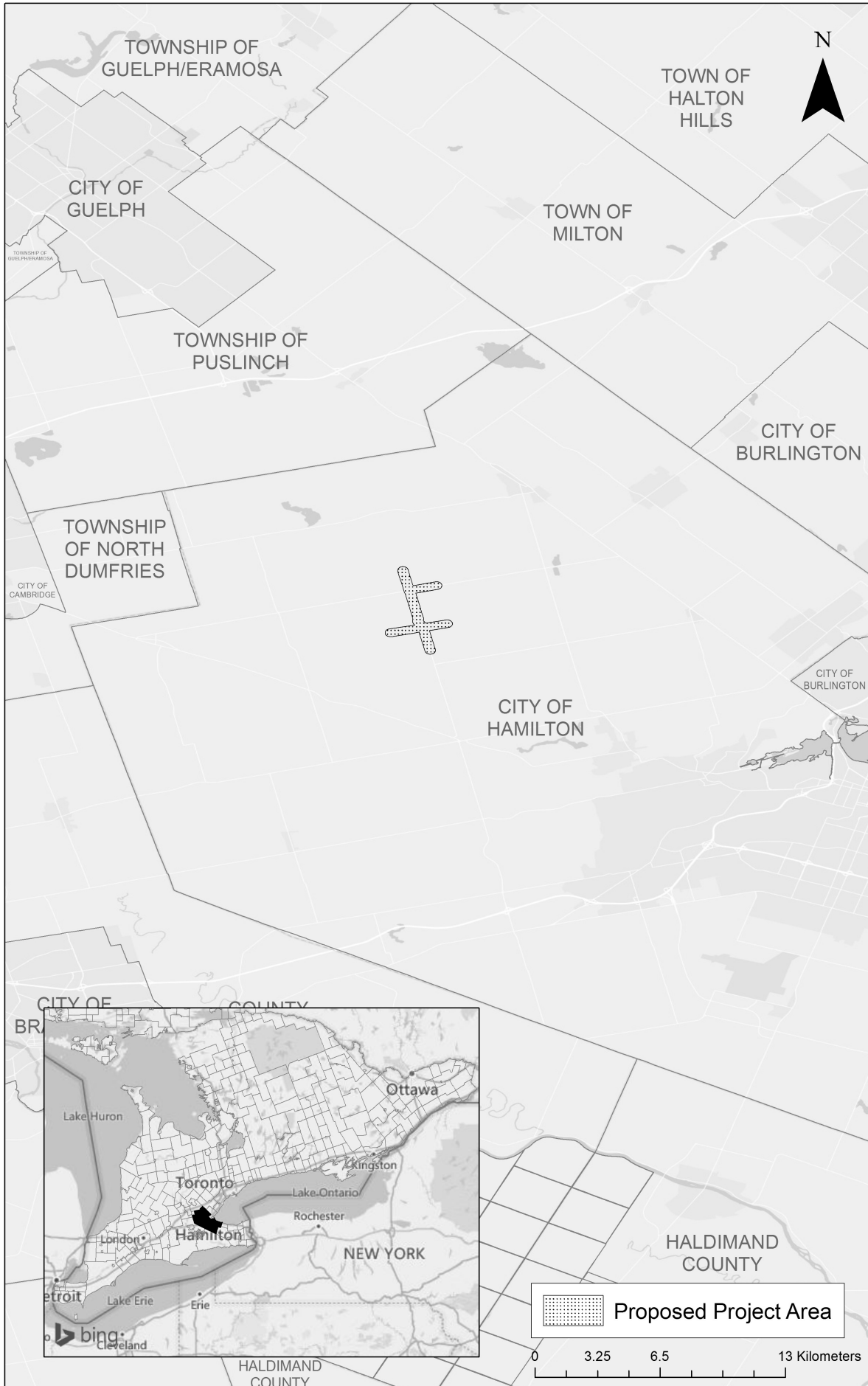
4.3	<p>Provide the total annual forecast revenue requirement of the project over the ten-year rate stability period (using fully allocated OM&A costs) and rate base amount at the end of year ten.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table><tr><td>Description</td><td>Year 1</td><td>Year 2...</td><td>Year 10</td><td>Total</td></tr><tr><td>Revenue Requirement</td><td></td><td></td><td></td><td></td></tr></table> <table><tr><td>Description</td><td>Year 10</td></tr><tr><td>Closing Rate Base</td><td></td></tr></table> <p>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).</p> <p>Please refer to Schedule 6G-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															
Part V – Section 36.2 Funding															
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$3,732,828</p> <p>Please refer to Schedule 6G-2, Table 5.1.</p>														
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$46,660</p> <p>Please refer to Schedule 6G-2, Table 5.2.</p>														
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$10.03</p> <p>Please refer to Schedule 6G-2, Table 5.3.</p>														

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 6G-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6G-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6G-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6G-4.</p>

Schedule 6G-1
Enbridge Gas Community Expansion Project Proposal
Hamilton (Westover)



Schedule 6G-2
Enbridge Gas Community Expansion Project Proposal
Hamilton (Westover)

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	23	18	12	6	6	2	2	2	2	2	75
	-	3	-	-	-	-	-	-	-	-	3
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	2	-	-	-	-	-	-	-	-	2
	<u>23</u>	<u>23</u>	<u>12</u>	<u>6</u>	<u>6</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>80</u>
	23	46	58	64	70	72	74	76	78	80	

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

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Annual Volumes - m3		7	8	9	10	Total
	25,300	70,400	103,400	123,200	136,400	145,200	149,600	154,000	158,400	162,800	1,228,700
	-	4,700	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	79,900
	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-
	-	100,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,700,000
	<u>25,300</u>	<u>175,100</u>	<u>312,800</u>	<u>332,600</u>	<u>345,800</u>	<u>354,600</u>	<u>359,000</u>	<u>363,400</u>	<u>367,800</u>	<u>372,200</u>	<u>3,008,600</u>

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	1	2	3	4	Cumulative Volumes - m3		7	8	9	10	
	25,300	95,700	199,100	322,300	458,700	603,900	753,500	907,500	1,065,900	1,228,700	
	-	4,700	14,100	23,500	32,900	42,300	51,700	61,100	70,500	79,900	
	-	-	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	-	-	
	-	100,000	300,000	500,000	700,000	900,000	1,100,000	1,300,000	1,500,000	1,700,000	
	<u>25,300</u>	<u>200,400</u>	<u>513,200</u>	<u>845,800</u>	<u>1,191,600</u>	<u>1,546,200</u>	<u>1,905,200</u>	<u>2,268,600</u>	<u>2,636,400</u>	<u>3,008,600</u>	

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

Total Capital Costs

[Year 10](#)

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

Project Year	1	2	3	4	5	6	7	8	9	10	Total
------------------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	--------------------	-----------------------

[Year 10](#)

Closing Rate Base (net of proposed Section 36.2 funding)
--

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 3,732,828
--	--------------

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> \$ 46,660
---	---

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u>Year 10</u> \$ 10.03
---	--

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	3,756	14,543	23,533	26,473	28,433	29,739	30,393	31,046	31,699	32,353	\$ 251,968
SES Revenue		5,819	40,273	71,944	76,498	79,534	81,558	82,570	83,582	84,594	85,606	691,978
Total Distribution Charge	\$	<u>9,575</u>	<u>54,816</u>	<u>95,477</u>	<u>102,971</u>	<u>107,967</u>	<u>111,297</u>	<u>112,963</u>	<u>114,628</u>	<u>116,293</u>	<u>117,959</u>	<u>\$ 943,946</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	Net Present Value	
Cash Inflow		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
Cash Outflow		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6G-3
Enbridge Gas Community Expansion Project Proposal
Hamilton (Westover)

Section 3.4 Westover (City of Hamilton)

Total Forecasted Customers 80 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	17	21%	\$ 5,000	\$ 2,829	\$ 1,258	\$ 1,571	\$ 26,393	6.7	-2.5	112	(42)
Electricity F/A	7	9%	\$ 5,000	\$ 2,028	\$ 1,258	\$ 770	\$ 5,547	0.5	3.6	4	26
Electricity Baseboard	10	12%	\$ 12,000	\$ 1,626	\$ 1,258	\$ 368	\$ 3,532	0.5	3.6	5	34
Propane	35	44%	\$ 600	\$ 1,626	\$ 1,258	\$ 368	\$ 12,951	5.2	-1.1	182	(37)
Wood	7	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	4	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	80	100%	\$ 31,100	\$ 8,109	\$ 5,031	\$ 3,077	\$ 48,422	12.9	3.6	303	(20)

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.

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.

	Emission 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 M1 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.572
Heating oil	L	2433	Heating oil	\$/L	1.163
Electricity	kWh	18046	Electricity	\$/kWh	0.112
Propane	L	3359	Propane	\$/L	0.484

Notes:

Gas prices correspond to EGI (Union Gas South) April 2020 rates, including 23 cents per m3 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

South Propane prices correspond to the latest available monthly average EDPRO residential rates for Zone 1 (March 2020).

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

Schedule 6G-4
Enbridge Gas Community Expansion Project Proposal
Hamilton (Westover)

Hamilton (Westover) Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6G-5
Enbridge Gas Community Expansion Project Proposal
Hamilton (Westover)



Hamilton

City Hall, 71 Main Street West
Hamilton, Ontario,
Canada L8P 4Y5
www.hamilton.ca

Alvin Chan, Manager, Legislative Approvals / Staging of Development
Planning and Economic Development Department
Growth Management Division
71 Main Street West, 6th Floor, Hamilton, ON L8P 4Y5
Phone: 905.546.2424 Ext. 2978 Fax: 905.540-5611
Email: Alvin.chan@hamilton.ca

June 5, 2020

Enbridge Gas Inc.
50 Keil Drive North,
Chatham, ON, Canada
N7M 5M1

Attention: Wayne Passmore

**RE: City of Hamilton ("City") Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
("Projects") for submission to the Ontario Energy Board; and, the Ministry of
Energy Natural Gas Expansion Program**

Dear Wayne,

The City's interest in the five individual Projects relates to how it may impact the environmental and financial well-being of the municipality, as well as the health, safety and well-being of its inhabitants.

In review of these Projects for the expansion of natural gas services by Enbridge Gas Inc., to the Airport Employment Growth District and Red Hill Business Parks; and, the rural settlement areas of Rockton; Westover; Sheffield; and Alberton, be submitted to the Ontario Energy Board for application under the Ministry of Energy Natural Gas Expansion Program.

Accordingly, as per the Program Guidelines, **the City supports the expansion of natural gas services to the Airport Employment Growth District and Red Hill Business Parks; and, to the rural settlement areas of Rockton; Westover; Sheffield; and, Alberton. However, the City is not in a position to make any financial contributions to this Project**, as per the rationale documented below:

Rationale for No Financial Contribution:

Financial Concerns:

Staff was unable to document the financial implications of the individual Projects and requests for Financial Contribution, due to internal deadlines and availability of Council meetings.

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
 (“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

As such, the City was not provided sufficient time to complete a thorough financial analysis and evaluation of the potential implications of making a financial contribution to these projects.

In particular, albeit the City did receive mapping from Enbridge Gas Inc, additional information, including but not limited to, the type, length, and diameter of the pipeline, and the rate applied for property assessment purposes would be required together in consultation with the Municipal Property Assessment Corporation (MPAC) in order to validate the estimated property tax figure.

Natural Heritage Concerns; Source Water Protection Concerns; Cultural and Built Heritage Concerns; Municipal Infrastructure Concerns; Climate Emergency; and, Emergency Response.

In discussion with Enbridge Gas Inc., the preferred options and optimal route have not yet been established and will be completed should the Ministry approve a Grant for any of the five individual projects.

Accordingly, the City requests the opportunity under any project, to review and comment on any proposed options and / or routes; and potential conditions of approval, as part of any approval process, including, but not limited to, applications before the Ontario Energy Board.

Lastly, in the absence of a preferred option or route, the City was not provided sufficient time to evaluate partnering and the timing of project construction, in order to leverage other municipal works occurring along the same corridor for any of these projects.

Should you have any questions, please do not hesitate to contact the undersigned.

Sincerely,



Alvin Chan, BES, MCIP, RPP
Manager, Legislative Approvals/Staging of Development
Growth Management Division
Planning and Economic Development Department
71 Main Street West, 6th Floor
Hamilton, ON, L8P 4Y5
905-546-2424 Ext 2978
alvin.chan@hamilton.ca

**Subject: City of Hamilton (“City”) Letter of Support
Enbridge Gas Inc. City of Hamilton Natural Gas Expansion Projects
 (“Projects”) for submission to the Ontario Energy Board; and, the
Ministry of Energy Natural Gas Expansion Program**

C.C. Jason Thorne, General Manager, Planning and Economic Development Department
Tony Sergi, Senior Director, Growth Management Division
Norm Schleeahn, Director, Economic Development Division
Guy Paparella, Special Projects Manager, Growth Management Division
Sue Rimac, Business Development Consultant, Economic Development Division
Jennifer Patterson, Senior Business Development Consultant, Economic Development Division
Councilor Brenda Johnson (Ward 11)
Councilor Lloyd Ferguson (Ward 12)
Councilor Arlene Vanderbeek (Ward 13)

Schedule 6G-6
Enbridge Gas Community Expansion Project Proposal
Hamilton (Westover)

EB-2006-0284

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby grants

Union Gas Limited

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 City of Hamilton

This certificate replaces the certificates of the former municipalities that are now within the City of Hamilton.

DATED at Toronto, February 6, 2007

ONTARIO ENERGY BOARD

Original signed by

Mark C. Garner
Managing Director, Market Operations

Schedule 6H
Enbridge Gas Community Expansion Project Proposal
Kirkfield, Coboconk, Norland (Kawartha Lakes)

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1
Redacted

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.

Enbridge Gas is proposing to provide gas distribution service in the communities of Kirkfield, Coboconk and Norland within the City of Kawartha Lakes as well as to residential areas along the supply lateral including near _____ and _____.

The proposed facilities will provide access to natural gas to a forecasted 946 customers (829 residential, 106 commercial / institutional and 11 industrial).

The proposed tie-in of the steel supply lateral to the existing system is in the community of Beaverton in the Township of Brock at the intersection of _____ and _____.

The proposed supply lateral heads _____ from the tie-in to _____, _____ to _____, _____ to Kirkfield, _____ to _____ (Coboconk), and _____ to Norland.

Two stations are required to reduce pressure for distribution: at the intersection of _____ and _____ and at the intersection of _____ and _____.

The proposed distribution system includes residential streets off _____, _____ (including across the waterway along _____ to _____), Kirkfield, _____, _____ to community of _____, Coboconk (including _____), streets off _____, and Norland.

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Steel	8	18,523
Polyethylene	8	26,831

The approximate length and size of the reinforcement required:

Pipe Type	Diameter (NPS)	Length (m)
Steel	6	1,880
Steel	6	8,622
Steel	6	8,700

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	58,231
Polyethylene	4	4,800
Polyethylene	6	4,920

3.2	<p>Please refer to Schedule 6H-1 for Project Map.</p> <p>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.</p> <p>Please refer to Schedule 6H-2, Table 3.2.</p>
3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6H-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6H-3, Table 3.4.</p>

3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6H-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6H-5.</p>
3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6H-6 for Enbridge's CPCN for the City of Kawartha Lakes (EB-2017-0147) which covers the majority of the area of the proposed project.</p> <p>(A CPCN will be required for parts of the Township of Brock.)</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>

4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6H-2, Table 4.2.</p>														
4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table><tr><td>Description</td><td>Year 1</td><td>Year 2...</td><td>Year 10</td><td>Total</td></tr><tr><td>Revenue Requirement</td><td></td><td></td><td></td><td></td></tr></table> <table><tr><td>Description</td><td>Year 10</td></tr><tr><td>Closing Rate Base</td><td></td></tr></table> <p>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).</p> <p>Please refer to Schedule 6H-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$127,221,409</p> <p>Please refer to Schedule 6H-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$134,484</p> <p>Please refer to Schedule 6H-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$35.54</p> <p>Please refer to Schedule 6H-2, Table 5.3.</p>

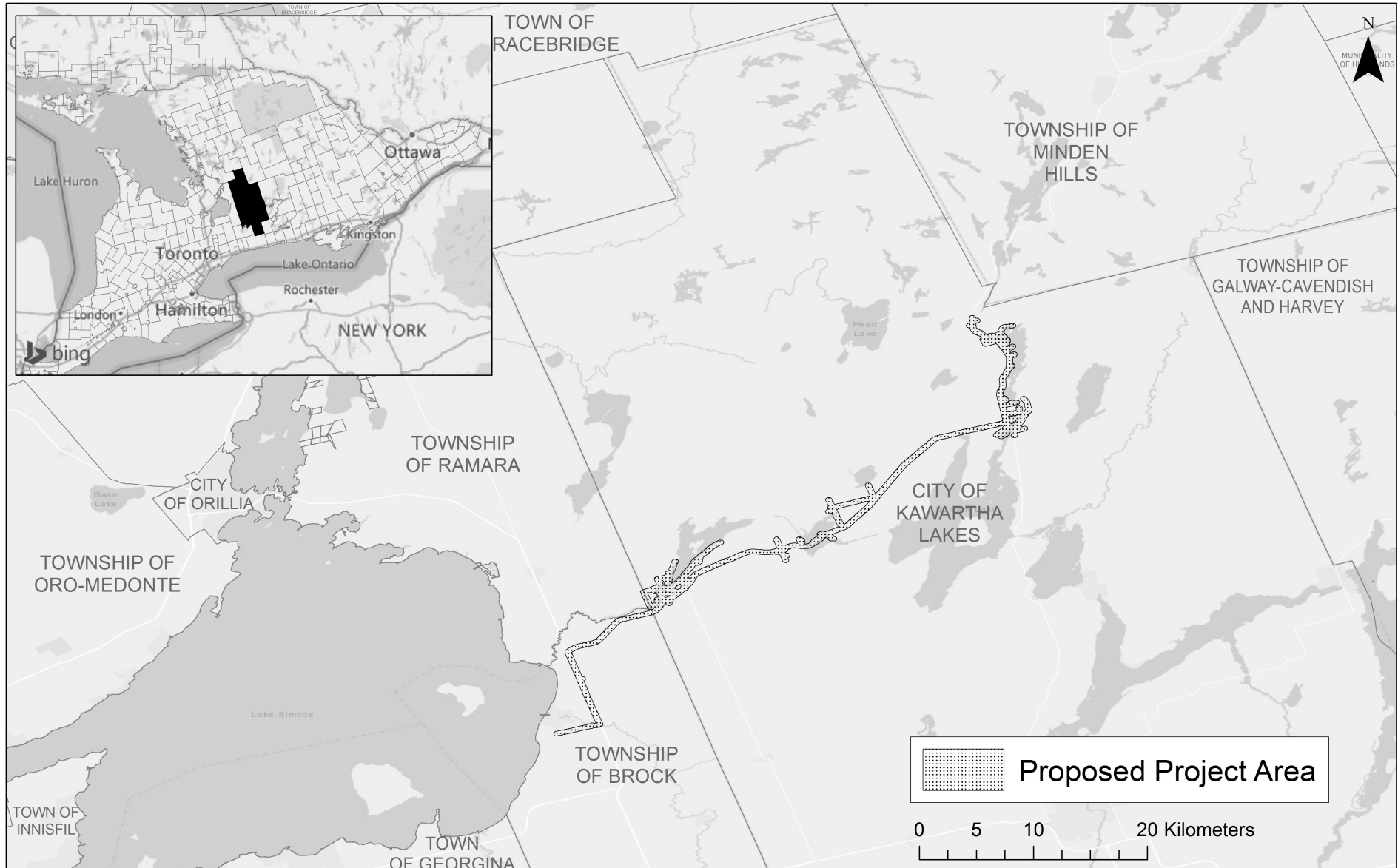
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the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

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6H-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6H-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • Franchise Agreement and CPCN (Township of Brock)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6H-4.</p>

Schedule 6H-1
Enbridge Gas Community Expansion Project Proposal
Kirkfield, Coboconk, Norland (Kawartha Lakes)

Kirkfield, Coboconk, Norland



Schedule 6H-2
Enbridge Gas Community Expansion Project Proposal
Kirkfield, Coboconk, Norland (Kawartha Lakes)

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	223	198	75	54	42	52	45	52	46	42	829
	-	53	16	7	7	4	4	4	3	3	101
	-	1	1	-	-	-	-	-	-	-	2
	-	2	1	-	-	-	-	-	-	-	3
	-	4	1	1	1	1	1	1	1	-	11
	223	258	94	62	50	57	50	57	50	45	946
	223	481	575	637	687	744	794	851	901	946	

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

Customer Type	Annual Volumes - m3										Total
Project Year	1	2	3	4	5	6	7	8	9	10	
Residential	267,600	772,800	1,100,400	1,255,200	1,370,400	1,483,200	1,599,600	1,716,000	1,833,600	1,939,200	13,338,000
Commercial	-	103,300	238,600	284,100	311,100	334,500	354,300	374,100	392,700	410,100	2,802,800
Institutional	-	25,000	75,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	800,000
Agricultural	-	10,000	25,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	245,000
Industrial	-	200,000	450,000	550,000	650,000	750,000	850,000	950,000	1,050,000	1,100,000	6,550,000
Total Volumes	267,600	1,111,100	1,889,000	2,219,300	2,461,500	2,697,700	2,933,900	3,170,100	3,406,300	3,579,300	23,735,800

Customer Type	Cumulative Volumes - m3									
Project Year	1	2	3	4	5	6	7	8	9	10
Residential	267,600	1,040,400	2,140,800	3,396,000	4,766,400	6,249,600	7,849,200	9,565,200	11,398,800	13,338,000
Commercial	-	103,300	341,900	626,000	937,100	1,271,600	1,625,900	2,000,000	2,392,700	2,802,800
Institutional	-	25,000	100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000
Agricultural	-	10,000	35,000	65,000	95,000	125,000	155,000	185,000	215,000	245,000
Industrial	-	200,000	650,000	1,200,000	1,850,000	2,600,000	3,450,000	4,400,000	5,450,000	6,550,000
Total Volumes	267,600	1,378,700	3,267,700	5,487,000	7,948,500	10,646,200	13,580,100	16,750,200	20,156,500	23,735,800

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

	Year 10
Total Capital Costs	

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Project Year	1	2	3	4	5	6	7	8	9	10	Total
Revenue Requirement											

	Year 10
Closing Rate Base (net of proposed Section 36.2 funding)	

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 127,221,409
--	----------------

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u><u>\$ Year 10</u></u> 134,484
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Volume (m3)	<u><u>\$ Year 10</u></u> 35.54
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Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	46,891	179,210	294,614	342,487	375,757	407,029	437,355	467,680	497,690	522,542	\$ 3,571,254
SES Revenue		61,548	255,553	434,470	510,439	566,145	620,471	674,797	729,123	783,449	823,239	5,459,234
Total Distribution Charge	\$	<u>108,439</u>	<u>434,763</u>	<u>729,084</u>	<u>852,926</u>	<u>941,902</u>	<u>1,027,500</u>	<u>1,112,152</u>	<u>1,196,803</u>	<u>1,281,139</u>	<u>1,345,781</u>	<u>\$ 9,030,488</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6H-3
Enbridge Gas Community Expansion Project Proposal
Kirkfield, Coboconk, Norland (Kawartha Lakes)

Section 3.4 Kirkfield, Coboconk, Norland

Total Forecasted Customers 946 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	199	21%	\$ 5,000	\$ 3,050	\$ 1,481	\$ 1,570	\$ 311,845	7.2	-2.7	1,425	(531)
Electricity F/A	85	9%	\$ 5,000	\$ 2,187	\$ 1,481	\$ 706	\$ 60,147	0.6	3.9	50	333
Electricity Baseboard	114	12%	\$ 12,000	\$ 2,187	\$ 1,481	\$ 706	\$ 80,196	0.6	3.9	66	444
Propane	416	44%	\$ 600	\$ 1,764	\$ 1,481	\$ 283	\$ 117,933	5.6	-1.1	2,326	(454)
Wood	85	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	47	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	946	100%	\$ 31,100	\$ 9,188	\$ 5,923	\$ 3,266	\$ 570,122	13.9	4.1	3,867	(207)

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.

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.

	Emission 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)					
Consumption 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 m³ 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.

Schedule 6H-4
Enbridge Gas Community Expansion Project Proposal
Kirkfield, Coboconk, Norland (Kawartha Lakes)

Kirkfield, Coboconk, Norland Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6H-5
Enbridge Gas Community Expansion Project Proposal
Kirkfield, Coboconk, Norland (Kawartha Lakes)



The Corporation of the
City of Kawartha Lakes

P.O. Box 9000, 26 Francis St.,

Lindsay, Ontario K9V 5R8

Tel: (705) 324-9411 ext. 1320, 1 888-822-2225

Fax: (705) 324-8110

aletham@kawarthalakes.ca

June 11, 2020

Re: Expression of Support for Natural Gas Expansion to Kirkfield

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 Support Program will unlock financial support needed to expand natural gas service to new areas across Ontario that are not economically feasible without support. The City of Kawartha Lakes is one such area, and we are eager to bring this affordable, reliable fuel source to more residents and businesses.

On behalf of City of Kawartha Lakes, I would like to formally support the inclusion of Kirkfield on Enbridge Gas' list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through the Natural Gas Expansion Support Program.

Based on the Guidelines issued by the OEB (EB-2019-0255) on March 5th, 2020, we are aware that Enbridge Gas may include support for the proposed project from local government, demonstrated through a written expression of support in its project submissions.

Natural gas is the most common, affordable heating fuel in Ontario. The City of Kawartha Lakes supports the efforts of Enbridge Gas, 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 more residents and business owners.

Sincerely,

A handwritten signature in black ink, appearing to read "A Letham", is written over a horizontal line.

Andy Letham

Mayor

City of Kawartha Lakes



The Corporation of the
City of Kawartha Lakes

*P.O. Box 9000, 26 Francis St.,
Lindsay, Ontario K9V 5R8*

Tel: (705) 324-9411 ext. 1320, 1 888-822-2225

Fax: (705) 324-8110

aletham@kawarthalakes.ca

June 11, 2020

Re: Expression of Support for Natural Gas Expansion to Coboconk

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 Support Program will unlock financial support needed to expand natural gas service to new areas across Ontario that are not economically feasible without support. The City of Kawartha Lakes is one such area, and we are eager to bring this affordable, reliable fuel source to more residents and businesses.

On behalf of City of Kawartha Lakes, I would like to formally support the inclusion of Coboconk on Enbridge Gas' list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through the Natural Gas Expansion Support Program.

Based on the Guidelines issued by the OEB (EB-2019-0255) on March 5th, 2020, we are aware that Enbridge Gas may include support for the proposed project from local government, demonstrated through a written expression of support in its project submissions.

Natural gas is the most common, affordable heating fuel in Ontario. The City of Kawartha Lakes supports the efforts of Enbridge Gas, 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 more residents and business owners.

Sincerely,

A handwritten signature in dark ink, appearing to read "A Letham", is written over a horizontal line.

Andy Letham
Mayor
City of Kawartha Lakes



The Corporation of the
City of Kawartha Lakes

P.O. Box 9000, 26 Francis St.,
Lindsay, Ontario K9V 5R8

Tel: (705) 324-9411 ext. 1320, 1 888-822-2225

Fax: (705) 324-8110

aletham@kawarthalakes.ca

June 11, 2020

Re: Expression of Support for Natural Gas Expansion to Norland

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 Support Program will unlock financial support needed to expand natural gas service to new areas across Ontario that are not economically feasible without support. The City of Kawartha Lakes is one such area, and we are eager to bring this affordable, reliable fuel source to more residents and businesses.

On behalf of City of Kawartha Lakes, I would like to formally support the inclusion of Norland on Enbridge Gas' list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through the Natural Gas Expansion Support Program.

Based on the Guidelines issued by the OEB (EB-2019-0255) on March 5th, 2020, we are aware that Enbridge Gas may include support for the proposed project from local government, demonstrated through a written expression of support in its project submissions.

Natural gas is the most common, affordable heating fuel in Ontario. The City of Kawartha Lakes supports the efforts of Enbridge Gas, 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 more residents and business owners.

Sincerely,

A handwritten signature in black ink, appearing to read "A Letham", written over a horizontal line.

Andy Letham
Mayor
City of Kawartha Lakes

Schedule 6H-6
Enbridge Gas Community Expansion Project Proposal
Kirkfield, Coboconk, Norland (Kawartha Lakes)

EB-2017-0147

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 in the

City of Kawartha Lakes

DATED at Toronto, March 1, 2018

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

EB-2013-0210

Certificate of Public Convenience and Necessity

The Ontario Energy Board hereby 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 in the geographic boundaries of the

Municipality of Brock

This certificate replaces the Certificate of Public Convenience and Necessity that is associated with the former Township of Brock, the former Town of Beaverton, and the former Town of Thorah with a Certificate of Public Convenience and Necessity for the Municipality of Brock.

DATED at Toronto, July 18, 2013

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

Schedule 6I
Enbridge Gas Community Expansion Project Proposal
Scugog North Shore (Kawartha Lakes)

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to expand gas distribution service within the City of Kawartha Lakes along the North Shore of Lake Scugog in various communities including Sonya, Gilson's Point, Fingerboard, Newman's Beach, Star's Beach along _____, Oakdene Point and communities along _____, communities along _____, _____ and _____.

The proposed facilities will provide access to natural gas to a forecasted 851 customers (834 residential, 16 commercial / institutional and 1 industrial).

The proposed project will tie-in to an existing 6" polyethylene supply lateral at the intersection of _____ and _____. A station is proposed at the tie-in location to reduce the existing system pressure to distribution pressure for the proposed facilities. From the outlet of the proposed station, the supply lateral will run _____ on _____ to _____ and along _____ to _____, and _____ along _____.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	44,474
Polyethylene	4	13,021
Polyethylene	6	16,390

Please refer to Schedule 6I-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 6I-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6I-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6I-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6I-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6I-5.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6I-6 for Enbridge's CPCN for the City of Kawartha Lakes (EB-2017-0147) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6I-2, Table 4.2.</p>

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				

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).

Please refer to Schedule 6I-2, Table 4.3.

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$28,138,012</p> <p>Please refer to Schedule 6I-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$33,065</p> <p>Please refer to Schedule 6I-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$13.34</p> <p>Please refer to Schedule 6I-2, Table 5.3.</p>

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 6I-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6I-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6I-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6I-4.</p>

Schedule 6I-1
Enbridge Gas Community Expansion Project Proposal
Scugog North Shore (Kawartha Lakes)

Scugog North Shore (Kawartha Lakes)



Schedule 6I-2
Enbridge Gas Community Expansion Project Proposal
Scugog North Shore (Kawartha Lakes)

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

Project Year	1	2	3	4	5	6	7	8	9	10	Total
	225	200	75	54	42	52	45	52	46	43	834
	-	8	3	1	1	1	1	-	-	-	15
	-	-	-	-	-	-	-	-	-	-	-
	-	1	-	-	-	-	-	-	-	-	1
	-	1	-	-	-	-	-	-	-	-	1
	225	210	78	55	43	53	46	52	46	43	851
	225	435	513	568	611	664	710	762	808	851	

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

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	Annual Volumes - m3										Total
	1	2	3	4	5	6	7	8	9	10	
	270,000	780,000	1,110,000	1,264,800	1,380,000	1,492,800	1,609,200	1,725,600	1,843,200	1,950,000	13,425,600
	-	9,600	24,100	30,200	32,600	35,000	37,400	38,600	38,600	38,600	284,700
	-	-	-	-	-	-	-	-	-	-	-
	-	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	170,000
	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
	270,000	849,600	1,254,100	1,415,000	1,532,600	1,647,800	1,766,600	1,884,200	2,001,800	2,108,600	14,730,300

Customer Type
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

Project Year	Cumulative Volumes - m3									
	1	2	3	4	5	6	7	8	9	10
	270,000	1,050,000	2,160,000	3,424,800	4,804,800	6,297,600	7,906,800	9,632,400	11,475,600	13,425,600
	-	9,600	33,700	63,900	96,500	131,500	168,900	207,500	246,100	284,700
	-	-	-	-	-	-	-	-	-	-
	-	10,000	30,000	50,000	70,000	90,000	110,000	130,000	150,000	170,000
	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000
	270,000	1,119,600	2,373,700	3,788,700	5,321,300	6,969,100	8,735,700	10,619,900	12,621,700	14,730,300

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

Total Capital Costs

Year 10

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

Project Year	1	2	3	4	5	6	7	8	9	10	Total

Closing Rate Base (net of proposed Section 36.2 funding)

Year 10

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project

\$28,138,012

Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served

Year 10

\$33,065

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Volume (m3)

Year 10

\$13.34

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	47,311	144,431	211,677	240,996	262,233	283,051	304,499	325,421	346,028	364,742	\$2,530,387
SES Revenue		62,100	195,408	288,443	325,450	352,498	378,994	406,318	433,366	460,414	484,978	3,387,969
Total Distribution Charge	\$	109,411	339,839	500,120	566,446	614,731	662,045	710,817	758,787	806,442	849,720	\$5,918,356

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	Net Present Value
Cash Inflow	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
Cash Outflow	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	1.00

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6I-3
Enbridge Gas Community Expansion Project Proposal
Scugog North Shore (Kawartha Lakes)

Section 3.4 Scugog North Shore

Total Forecasted Customers 851 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	179	21%	\$ 5,000	\$ 3,050	\$ 1,481	\$ 1,570	\$ 280,529	7.2	-2.7	1,282	(478)
Electricity F/A	77	9%	\$ 5,000	\$ 2,187	\$ 1,481	\$ 706	\$ 54,107	0.6	3.9	45	300
Electricity Baseboard	102	12%	\$ 12,000	\$ 2,187	\$ 1,481	\$ 706	\$ 72,143	0.6	3.9	60	400
Propane	374	44%	\$ 600	\$ 1,764	\$ 1,481	\$ 283	\$ 106,089	5.6	-1.1	2,092	(408)
Wood	77	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	43	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	851	100%	\$ 31,100	\$ 9,188	\$ 5,923	\$ 3,266	\$ 512,868	13.9	4.1	3,479	(186)

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.

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.

	Emission 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)					
Consumption 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 m³ 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.

Schedule 6I-4
Enbridge Gas Community Expansion Project Proposal
Scugog North Shore (Kawartha Lakes)

Scugog North Shore Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6I-5
Enbridge Gas Community Expansion Project Proposal
Scugog North Shore (Kawartha Lakes)



The Corporation of the
City of Kawartha Lakes

P.O. Box 9000, 26 Francis St.,
Lindsay, Ontario K9V 5R8

Tel: (705) 324-9411 ext. 1320, 1 888-822-2225

Fax: (705) 324-8110

aletham@kawarthalakes.ca

June 15, 2020

Re: Expression of Support for Natural Gas Expansion to the North Shore of Scugog

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 Support Program will unlock financial support needed to expand natural gas service to new areas across Ontario that are not economically feasible without support. The City of Kawartha Lakes is one such area, and we are eager to bring this affordable, reliable fuel source to more residents and businesses.

On behalf of City of Kawartha Lakes, I would like to formally support the inclusion of the North Shore of Lake Scugog on Enbridge Gas' list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through the Natural Gas Expansion Support Program. This region captures everything feasible between [REDACTED] [REDACTED]

Based on the Guidelines issued by the OEB (EB-2019-0255) on March 5th, 2020, we are aware that Enbridge Gas may include support for the proposed project from local government, demonstrated through a written expression of support in its project submissions.

Natural gas is the most common, affordable heating fuel in Ontario. The City of Kawartha Lakes supports the efforts of Enbridge Gas, 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 more residents and business owners.

Sincerely,

Andy Letham

Mayor

City of Kawartha Lakes

Schedule 6I-6
Enbridge Gas Community Expansion Project Proposal
Scugog North Shore (Kawartha Lakes)

EB-2017-0147

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 in the

City of Kawartha Lakes

DATED at Toronto, March 1, 2018

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

Schedule 6J
Enbridge Gas Community Expansion Project Proposal
Woodville (Kawartha Lakes)

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to expand gas distribution service within the City of Kawartha Lakes to the community of Woodville. The proposed facilities will provide access to natural gas to a forecasted 257 customers (219 residential, 33 commercial / institutional and 5 industrial).

The proposed project will tie-in to an existing NPS 6 extra high pressure system at the intersection of _____ and _____. A station is proposed at the tie in location in order to reduce the existing system pressure to distribution pressure for the community. The supply lateral heads _____ from the tie-in to _____, then _____ to the community.

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	6	4,824

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	5,265
Polyethylene	4	11,052

Please refer to Schedule 6J-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 6J-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6J-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6J-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6J-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6J-5.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6J-6 for Enbridge's CPCN for the City of Kawartha Lakes (EB-2017-0147) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6J-2, Table 4.2.</p>

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				

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).

Please refer to Schedule 6J-2, Table 4.3.

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$8,629,036</p> <p>Please refer to Schedule 6J-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$33,576</p> <p>Please refer to Schedule 6J-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$6.79</p> <p>Please refer to Schedule 6J-2, Table 5.3.</p>

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 6J-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6J-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6J-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6J-4.</p>

Schedule 6J-1
Enbridge Gas Community Expansion Project Proposal
Woodville (Kawartha Lakes)

Woodville



Schedule 6J-2
Enbridge Gas Community Expansion Project Proposal
Woodville (Kawartha Lakes)

Table 3.2 - Customer Attachments Over The Rate Stability Period

<u>Customer Type</u>	<u>Firm / IT</u>
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

<u>Project Year</u>	<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>
	59	52	20	14	11	14	12	14	12	11	219
	-	16	4	3	3	1	1	1	-	-	29
	-	1	-	-	-	-	-	-	-	-	1
	-	3	-	-	-	-	-	-	-	-	3
	-	3	1	1	-	-	-	-	-	-	5
	<u>59</u>	<u>75</u>	<u>25</u>	<u>18</u>	<u>14</u>	<u>15</u>	<u>13</u>	<u>15</u>	<u>12</u>	<u>11</u>	<u>257</u>
	59	134	159	177	191	206	219	234	246	257	

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

<u>Customer Type</u>
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

<u>Annual Volumes - m3</u>											
<u>Project Year</u>	<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>
	70,800	204,000	290,400	331,200	361,200	391,200	422,400	453,600	484,800	512,400	3,522,000
	-	28,200	62,500	73,500	83,300	89,400	91,800	94,200	95,400	95,400	713,700
	-	25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	425,000
	-	56,200	112,400	112,400	112,400	112,400	112,400	112,400	112,400	112,400	955,400
	-	150,000	350,000	450,000	500,000	500,000	500,000	500,000	500,000	500,000	3,950,000
	<u>70,800</u>	<u>463,400</u>	<u>865,300</u>	<u>1,017,100</u>	<u>1,106,900</u>	<u>1,143,000</u>	<u>1,176,600</u>	<u>1,210,200</u>	<u>1,242,600</u>	<u>1,270,200</u>	<u>9,566,100</u>

<u>Customer Type</u>
Residential
Commercial
Institutional
Agricultural
Industrial
Total Volumes

<u>Cumulative Volumes - m3</u>											
<u>Project Year</u>	<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>	
	70,800	274,800	565,200	896,400	1,257,600	1,648,800	2,071,200	2,524,800	3,009,600	3,522,000	
	-	28,200	90,700	164,200	247,500	336,900	428,700	522,900	618,300	713,700	
	-	25,000	75,000	125,000	175,000	225,000	275,000	325,000	375,000	425,000	
	-	56,200	168,600	281,000	393,400	505,800	618,200	730,600	843,000	955,400	
	-	150,000	500,000	950,000	1,450,000	1,950,000	2,450,000	2,950,000	3,450,000	3,950,000	
	<u>70,800</u>	<u>534,200</u>	<u>1,399,500</u>	<u>2,416,600</u>	<u>3,523,500</u>	<u>4,666,500</u>	<u>5,843,100</u>	<u>7,053,300</u>	<u>8,295,900</u>	<u>9,566,100</u>	

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

Total Capital Costs

Year 10

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement

<u>Project Year</u>	<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>

Closing Rate Base (net of proposed Section 36.2 funding)

Year 10

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 8,629,036
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u><u>Year 10</u></u> \$ 33,576
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Volume (m3)	<u><u>Year 10</u></u> \$ 6.79
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Table 6.1 - Distribution Charge

	<u>Project Year</u>	<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>
Distribution Revenue	\$	12,406	57,794	99,706	115,776	126,899	134,349	140,868	147,387	153,379	158,216	\$ 1,146,780
SES Revenue		16,284	106,582	199,019	233,933	254,587	262,890	270,618	278,346	285,798	292,146	2,200,203
Total Distribution Charge	<u>\$</u>	<u>28,690</u>	<u>164,376</u>	<u>298,725</u>	<u>349,709</u>	<u>381,486</u>	<u>397,239</u>	<u>411,486</u>	<u>425,733</u>	<u>439,177</u>	<u>450,362</u>	<u>\$ 3,346,983</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6J-3
Enbridge Gas Community Expansion Project Proposal
Woodville (Kawartha Lakes)

Section 3.4 Woodville

Total Forecasted Customers 257 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	54	21%	\$ 5,000	\$ 3,050	\$ 1,481	\$ 1,570	\$ 84,719	7.2	-2.7	387	(144)
Electricity F/A	23	9%	\$ 5,000	\$ 2,187	\$ 1,481	\$ 706	\$ 16,340	0.6	3.9	14	91
Electricity Baseboard	31	12%	\$ 12,000	\$ 2,187	\$ 1,481	\$ 706	\$ 21,787	0.6	3.9	18	121
Propane	113	44%	\$ 600	\$ 1,764	\$ 1,481	\$ 283	\$ 32,039	5.6	-1.1	632	(123)
Wood	23	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	13	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	257	100%	\$ 31,100	\$ 9,188	\$ 5,923	\$ 3,266	\$ 154,885	13.9	4.1	1,051	(56)

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.

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.

	Emission 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)					
Consumption 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 m³ 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.

Schedule 6J-4
Enbridge Gas Community Expansion Project Proposal
Woodville (Kawartha Lakes)

Woodville Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6J-5
Enbridge Gas Community Expansion Project Proposal
Woodville (Kawartha Lakes)



The Corporation of the
City of Kawartha Lakes

P.O. Box 9000, 26 Francis St.,
Lindsay, Ontario K9V 5R8

Tel: (705) 324-9411 ext. 1320, 1 888-822-2225

Fax: (705) 324-8110

aletham@kawarthalakes.ca

June 11, 2020

Re: Expression of Support for Natural Gas Expansion to Woodville

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 Support Program will unlock financial support needed to expand natural gas service to new areas across Ontario that are not economically feasible without support. The City of Kawartha Lakes is one such area, and we are eager to bring this affordable, reliable fuel source to more residents and businesses.

On behalf of City of Kawartha Lakes, I would like to formally support the inclusion of Woodville on Enbridge Gas' list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through the Natural Gas Expansion Support Program.

Based on the Guidelines issued by the OEB (EB-2019-0255) on March 5th, 2020, we are aware that Enbridge Gas may include support for the proposed project from local government, demonstrated through a written expression of support in its project submissions.

Natural gas is the most common, affordable heating fuel in Ontario. The City of Kawartha Lakes supports the efforts of Enbridge Gas, 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 more residents and business owners.

Sincerely,

Andy Letham
Mayor
City of Kawartha Lakes

Schedule 6J-6
Enbridge Gas Community Expansion Project Proposal
Woodville (Kawartha Lakes)

EB-2017-0147

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 in the

City of Kawartha Lakes

DATED at Toronto, March 1, 2018

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

Schedule 6K
Enbridge Gas Community Expansion Project Proposal
Kinkora

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to provide gas distribution service in the community of Kinkora within the Township of Perth East. The proposed facilities will provide access to natural gas to a forecasted 29 customers (23 residential, 4 commercial / institutional, 1 agricultural intensive and 1 industrial).

The proposed project will tie-in to an existing 2" polyethylene pipe near the intersection of _____ and _____. The proposed distribution pipeline will consist of 4,100 m of 2" polyethylene pipe and 3,000 m of 4" polyethylene pipe and extend _____ from the tie-in along _____ to _____ and _____.

The existing Wartburg station will require upsizing.

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	2	4,100

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	4	3,000

Please refer to Schedule 6K-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 6K-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6K-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6K-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6K-4 for Proposed Construction Schedule</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6K-5.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6K-6 for Enbridge's CPCN for the Town of Perth East (RP-2003-0043 / EB-2003-0055) which covers the entire area of the proposed project.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6K-2, Table 4.2.</p>

4.3	<p>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.</p> <p>Complete the tables below:</p> <p>Revenue Requirement</p> <table border="1" style="margin: 10px auto; width: 80%;"> <tr> <th style="text-align: left;">Description</th> <th style="text-align: center;">Year 1</th> <th style="text-align: center;">Year 2...</th> <th style="text-align: center;">Year 10</th> <th style="text-align: center;">Total</th> </tr> <tr> <td>Revenue Requirement</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <table border="1" style="margin: 10px auto; width: 40%;"> <tr> <th style="text-align: left;">Description</th> <th style="text-align: center;">Year 10</th> </tr> <tr> <td>Closing Rate Base</td> <td></td> </tr> </table> <p>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).</p> <p>Please refer to Schedule 6K-2, Table 4.3.</p>	Description	Year 1	Year 2...	Year 10	Total	Revenue Requirement					Description	Year 10	Closing Rate Base	
Description	Year 1	Year 2...	Year 10	Total											
Revenue Requirement															
Description	Year 10														
Closing Rate Base															

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$3,072,782</p> <p>Please refer to Schedule 6K-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$105,958</p> <p>Please refer to Schedule 6K-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$14.04</p> <p>Please refer to Schedule 6K-2, Table 5.3.</p>

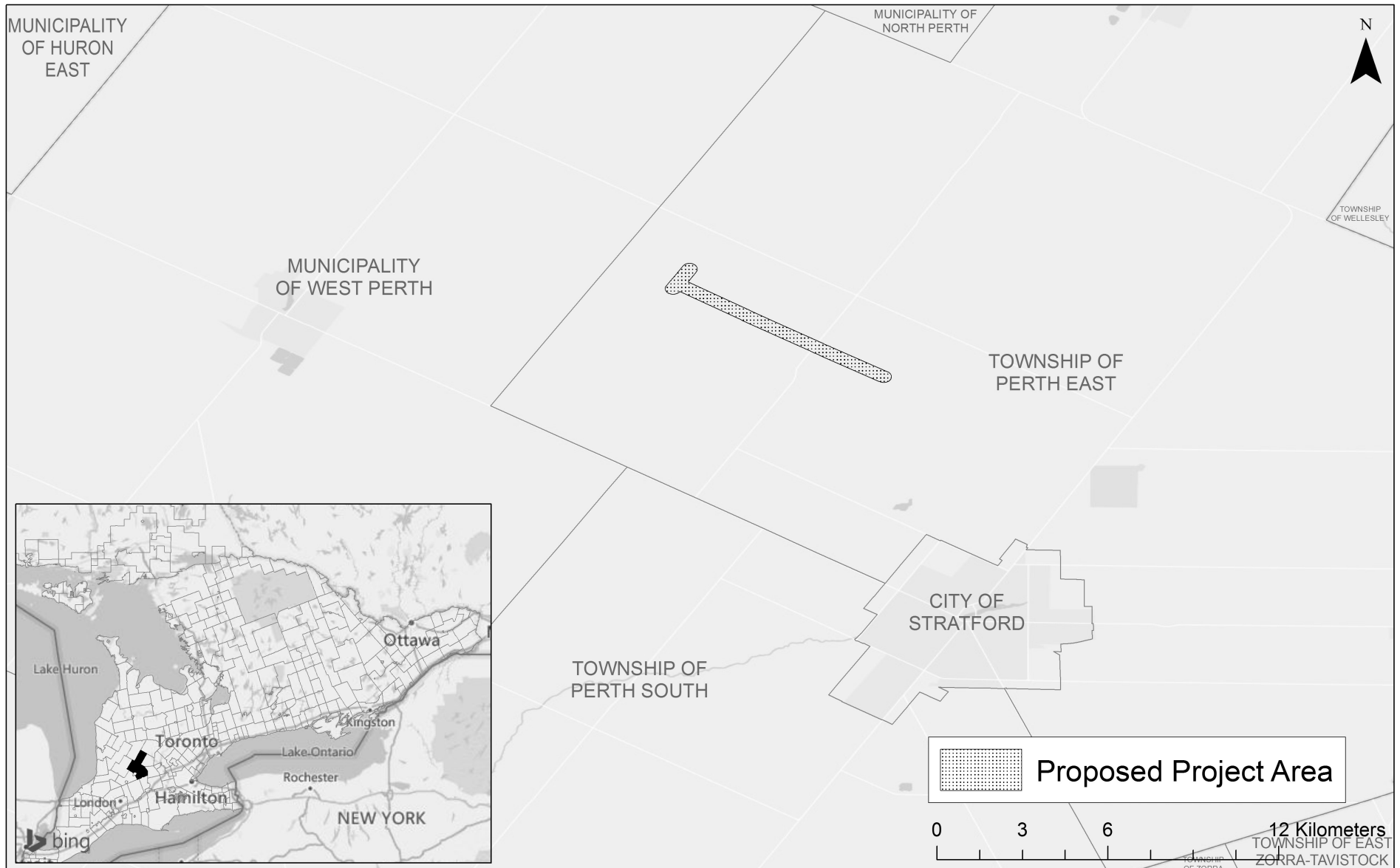
Part VI – Distribution Charge	
6.1	<p>Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the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

Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>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.</p> <p>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).</p> <p>Please refer to Schedule 6K-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6K-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • System Expansion Surcharge (SES) rate approval (subject to OEB determinations in the EB-2020-0094 harmonization proceeding)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6K-4.</p>

Schedule 6K-1
Enbridge Gas Community Expansion Project Proposal
Kinkora

Kinkora



Schedule 6K-2
Enbridge Gas Community Expansion Project Proposal
Kinkora

Table 3.2 - Customer Attachments Over The Rate Stability Period

<u>Customer Type</u>	<u>Firm / IT</u>
Residential	Firm
Commercial	Firm
Institutional	Firm
Agricultural	Firm
Industrial	Firm
Total Customers	
Cumulative Customers	

<u>Project Year</u>	<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>
	5	5	4	2	2	1	1	1	1	1	23
	-	3	-	-	-	-	-	-	-	-	3
	-	1	-	-	-	-	-	-	-	-	1
	-	1	-	-	-	-	-	-	-	-	1
	-	1	-	-	-	-	-	-	-	-	1
	<u>5</u>	<u>11</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>29</u>
	5	16	20	22	24	25	26	27	28	29	

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

<u>Customer Type</u>	<u>Annual Volumes - m3</u>										<u>Total</u>
	<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	5,500	16,500	26,400	33,000	37,400	40,700	42,900	45,100	47,300	49,500	344,300
Commercial	-	8,600	17,200	17,200	17,200	17,200	17,200	17,200	17,200	17,200	146,200
Institutional	-	25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	425,000
Agricultural	-	1,100	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	18,700
Industrial	-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	850,000
Total Volumes	<u>5,500</u>	<u>101,200</u>	<u>195,800</u>	<u>202,400</u>	<u>206,800</u>	<u>210,100</u>	<u>212,300</u>	<u>214,500</u>	<u>216,700</u>	<u>218,900</u>	<u>1,784,200</u>

<u>Customer Type</u>	<u>Cumulative Volumes - m3</u>										
	<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	5,500	22,000	48,400	81,400	118,800	159,500	202,400	247,500	294,800	344,300	
Commercial	-	8,600	25,800	43,000	60,200	77,400	94,600	111,800	129,000	146,200	
Institutional	-	25,000	75,000	125,000	175,000	225,000	275,000	325,000	375,000	425,000	
Agricultural	-	1,100	3,300	5,500	7,700	9,900	12,100	14,300	16,500	18,700	
Industrial	-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000	
Total Volumes	<u>5,500</u>	<u>106,700</u>	<u>302,500</u>	<u>504,900</u>	<u>711,700</u>	<u>921,800</u>	<u>1,134,100</u>	<u>1,348,600</u>	<u>1,565,300</u>	<u>1,784,200</u>	

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

Total Capital Costs	<u>Year 10</u>

Table 4.3 - Revenue Requirement Over The Rate Stability Period

Revenue Requirement	<u>Project Year</u>	<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>

Closing Rate Base (net of proposed Section 36.2 funding)	<u>Year 10</u>

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 3,072,782
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> \$ 105,958
---	--

Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Year 10 Volume (m3)	<u>Year 10</u> \$ 14.04
---	--

Table 6.1 - Distribution Charge

	Project Year	1	2	3	4	5	6	7	8	9	10	Total
Distribution Revenue	\$	817	5,837	10,693	11,673	12,326	12,816	13,143	13,470	13,796	14,123	\$ 108,694
SES Revenue		1,265	23,276	45,034	46,552	47,564	48,323	48,829	49,335	49,841	50,347	410,366
Total Distribution Charge	\$	<u>2,082</u>	<u>29,113</u>	<u>55,727</u>	<u>58,225</u>	<u>59,890</u>	<u>61,139</u>	<u>61,972</u>	<u>62,805</u>	<u>63,637</u>	<u>64,470</u>	<u>\$ 519,060</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6K-3
Enbridge Gas Community Expansion Project Proposal
Kinkora

Section 3.4 Kinkora

Total Forecasted Customers 29 Penetration Rate 65%

Existing Fuel / Heating Type	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Oil	6	21%	\$ 5,000	\$ 2,829	\$ 1,258	\$ 1,571	\$ 9,567	6.7	-2.5	41	(15)
Electricity F/A	3	9%	\$ 5,000	\$ 2,028	\$ 1,258	\$ 770	\$ 2,011	0.5	3.6	1	9
Electricity Baseboard	3	12%	\$ 12,000	\$ 1,626	\$ 1,258	\$ 368	\$ 1,280	0.5	3.6	2	12
Propane	13	44%	\$ 600	\$ 1,626	\$ 1,258	\$ 368	\$ 4,695	5.2	-1.1	66	(14)
Wood	3	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	1	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	29	100%	\$ 31,100	\$ 8,109	\$ 5,031	\$ 3,077	\$ 17,553	12.9	3.6	110	(7)

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.

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.

	Emission 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 M1 (Community Expansion, Non-FN)					
Consumption Equivalent			Price per Unit		
Gas	m3	2200	Gas (incl. fixed)	\$/m3	0.572
Heating oil	L	2433	Heating oil	\$/L	1.163
Electricity	kWh	18046	Electricity	\$/kWh	0.112
Propane	L	3359	Propane	\$/L	0.484

Notes:

Gas prices correspond to EGI (Union Gas South) April 2020 rates, including 23 cents per m3 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

South Propane prices correspond to the latest available montly average EDPRO residential rates for Zone 1 (March 2020).

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

Schedule 6K-4
Enbridge Gas Community Expansion Project Proposal
Kinkora

Kinkora Community Expansion Project Pipeline Construction Schedule

[illegible]

Schedule 6K-5
Enbridge Gas Community Expansion Project Proposal
Kinkora



Township of Perth East

P.O. Box 455, 25 Mill Street
Milverton, Ontario N0K 1M0

Phone (519) 595-2800
Fax (519) 595-2801

EB-2019-0255
Schedule 6K-5

July 7, 2020

Brian Lennie
Senior Advisor, Municipal Affairs & Stakeholder Relations
Ontario South/West Division
Enbridge Gas Inc.

Dear Mr. Lennie,

Re: Expression of Support for Natural Gas Expansion to Township of Perth East / Kinkora and Brunner Project

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. Our municipality 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 Perth East, I would like to formally express our interest to have the Kinkora/Brunner Project 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,

Theresa Campbell
Chief Administrative Officer
Township of Perth East
519-595-2800 ext. 232

Schedule 6K-6
Enbridge Gas Community Expansion Project Proposal
Kinkora



RP-2003-0043

EB-2003-0055

IN THE MATTER OF the *Municipal Franchises Act*,
R.S.O. 1990, c. M.55, as amended;

AND IN THE MATTER OF an application by Union Gas
Limited for an order cancelling and replacing the existing Cer-
tificates of Public Convenience and Necessity for the Town-
ship of Perth East.

Before:

Art Birchenough
Presiding Member

Ken McCann
Member

ORDER GRANTING A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

Union Gas Limited (“Union”) filed a application dated February 28, 2003 (the “Certificate Appli-
cation”) with the Ontario Energy Board (the “Board”) under the *Municipal Franchises Act*, R.S.O.
1990, c. M.55 as amended (the “Act”) for an order cancelling the existing Certificates of Public
Convenience and Necessity for the predecessor municipalities of the Township of Perth East
(Township of Ellice (F.B.C. 232) Township of North Easthope (F.B.C. 229), Township of South
Easthope (F.B.C. 233)) and replacing them with a Certificate of Public Convenience and Necessity
for the new Township of Perth East. The Board has assigned File No. RP-2003-0043/EB-2003-
0055 to this Certificate Application.

The Board’s Notice of Application was published on March 21, 2003. There were no intervenors.
On April 30, 2003 the Board issued a Notice of Written Hearing. No party satisfied the Board that
there was a good reason for not holding a written hearing. The replacement Certificate does not
grant Union any additional rights to those it held under the predecessor certificates, and is requested
by Union in order to recognize new municipal boundaries.

The Board found that, based on the evidence, granting the Certificate Application was in the public
interest.

THE BOARD THEREFORE ORDERS THAT:

11

1. The existing Certificates of Public Convenience and Necessity for the Township of Ellice (F.B.C. 232), Township of North Easthope (F.B.C. 229) and Township of South Easthope (F.B.C. 233) are cancelled and replaced with a single Certificate of Public Convenience and Necessity for the Township of Perth East (EB-2003-0055).
2. A Certificate of Public Convenience and Necessity is granted to Union Gas Limited to construct works to supply gas in the Township of Perth East (EB-2003-0055).

12

13

DATED at Toronto, July 29, 2003.

14

ONTARIO ENERGY BOARD

Peter H. O'Dell
Assistant Board Secretary

Schedule 6L
Enbridge Gas Community Expansion Project Proposal
Lanark and Balderson

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

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

Part II – Description of Proponent’s Technical Expertise and Financial Capability
<p><i>Natural gas distributors that are currently rate-regulated by the OEB are not required to complete this Part.</i></p> <p><i>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.</i></p>

Part II – Description of Proponent’s Technical Expertise and Financial Capability	
2.1	<p>Describe the proponent’s technical expertise to develop, construct, operate and maintain a natural gas distribution system.</p> <p>N/A</p>
2.2	<p>Describe the proponent’s financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:</p> <ul style="list-style-type: none"> • Current credit rating of the proponent, its parent or associated companies. • 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. • 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. <p>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.</p> <p>N/A</p>

Part III – Description of and Support for Project

3.1

Redacted

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.

Enbridge Gas is proposing to provide gas distribution service in the community of Lanark within the Township of Lanark Highlands and in the community of Balderson within the Township of Drummond / North Elmsley. The proposed facilities will provide access to natural gas to a forecasted 334 customers (282 residential, 42 commercial / institutional and 10 industrial).

The project proposes to tie-in to an existing system in the Town of Perth at the intersection of _____ and _____. The supply lateral runs _____ to Balderson and then on to Lanark. The project will require rebuilding the station at the tie-in point.

The approximate length and size of the supply laterals required:

Pipe Type	Diameter (NPS)	Length (m)
Polyethylene	6	13,050

The approximate length and size of the distribution pipelines required:

Pipe Type	Diameter (NPS)	Length
Polyethylene	2	18,903
Polyethylene	4	4,017

Please refer to Schedule 6L-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 6L-2, Table 3.2.

3.3	<p>Provide the annual and cumulative forecast of volumes (in m³) over the ten-year rate stability period by residential, commercial/institutional and industrial sectors for each community.</p> <p>For the residential segment, the default value for the average consumption level is 2,200 m³ 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.</p> <p>Please refer to Schedule 6L-2, Table 3.3.</p>
3.4	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6L-3, Table 3.4.</p>
3.5	<p>Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.</p> <p>Please refer to Schedule 6L-4 for Proposed Construction Schedule.</p>
3.6	<p>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.</p> <p>Please refer to Schedule 6L-5.</p>

3.7	<p>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.</p> <p>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.</p> <p>Please refer to Schedule 6L-6 for Enbridge's CPCNs with the Township of Drummond/North Elmsley (EB-2017-0343) and the Town of Perth (FBC 147) which cover the southern section of the proposed project.</p> <p>A CPCN will be required for the portion of the project within the Township of Lanark Highlands.</p>
Part IV – Cost of Project	
4.1	<p>Confirm that the proposed project includes a ten-year rate stability period.</p> <p>The proposed project does include a ten-year rate stability period.</p>
4.2	<p>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).</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>Please refer to Schedule 6L-2, Table 4.2.</p>

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				

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).

Please refer to Schedule 6L-2, Table 4.3.

Part V – Section 36.2 Funding	
5.1	<p>Provide the total amount of section 36.2 funding needed to support the project.</p> <p>\$12,673,429</p> <p>Please refer to Schedule 6L-2, Table 5.1.</p>
5.2	<p>Provide the section 36.2 funding amount per customer number served in year ten of the project.</p> <p>\$37,944</p> <p>Please refer to Schedule 6L-2, Table 5.2.</p>
5.3	<p>Provide the section 36.2 funding amount per volume (m³) in year ten of the project.</p> <p>\$6.70</p> <p>Please refer to Schedule 6L-2, Table 5.3.</p>

Part VI – Distribution Charge	
6.1	<p>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.</p> <p>Provide a confirmation that there would be no material cross-subsidization between rate classes.</p> <p>Please refer to Schedule 6L-2, Table 6.1.</p> <p>Enbridge Gas confirms that there will be no material cross-subsidization between rate classes.</p>

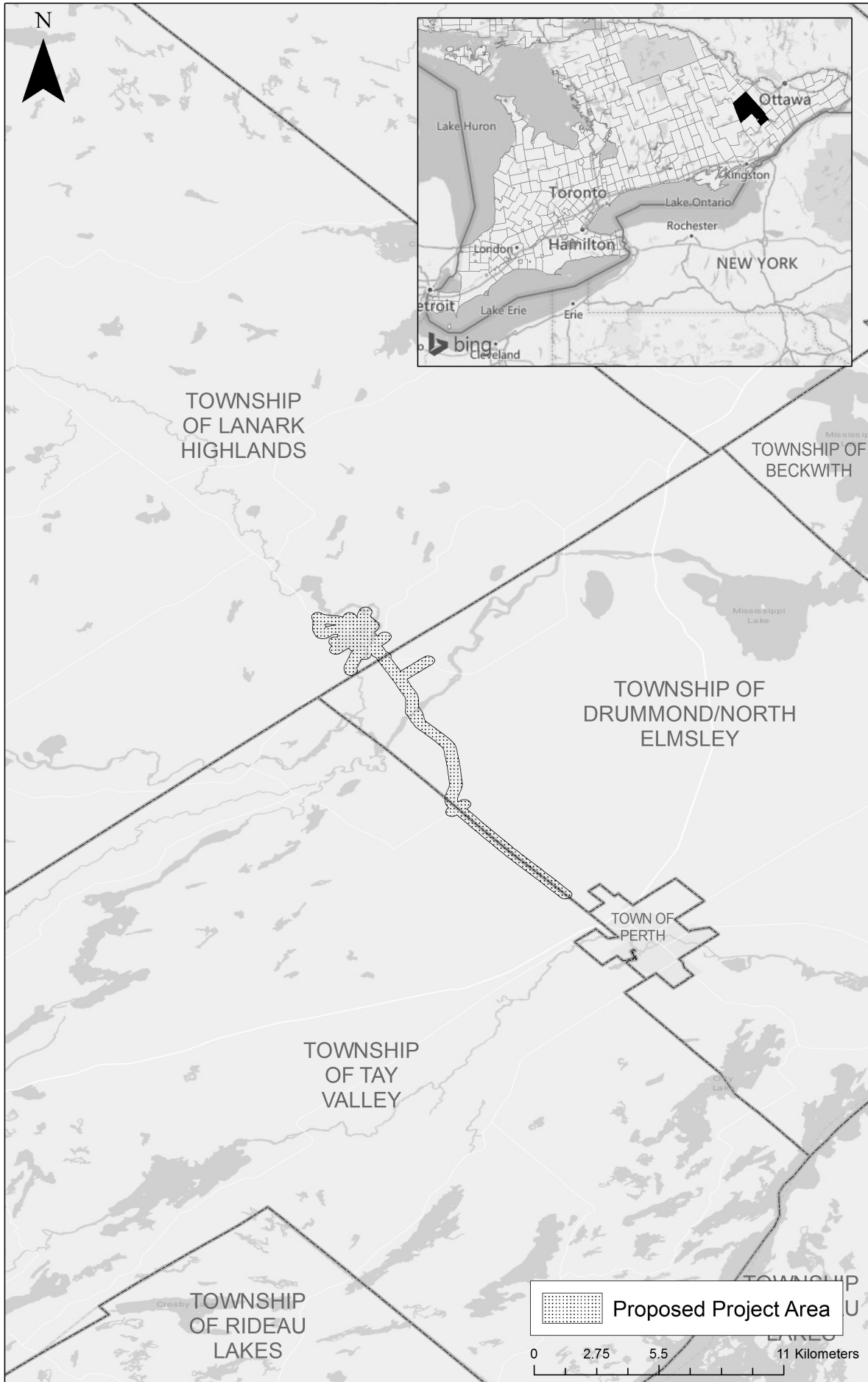
Part VII – Profitability Index / Benefit to Cost Ratio	
7.1	<p>Provide, in a summary table, the expected Profitability Index (PI) of the project, inclusive of the proposed section 36.2 funding. Provide any major assumptions used in the calculation, and specify all proposed section 36.2 funding, revenue from rates (including any proposed system expansion surcharges), capital contributions and municipal tax holidays or other municipal financial support.</p> <p>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).</p> <p>Please refer to Schedule 6L-2, Table 7.1.</p>
7.2	<p>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.</p> <p>Please refer to Schedule 6L-2, Table 7.2.</p>

Part VIII – OEB Approvals	
8.1	<p>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).</p> <ul style="list-style-type: none"> • Leave to Construct • Franchise Agreement and CPCN (Township of Lanark Highlands)
8.2	<p>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 website and where applicable assume a written hearing process.</p> <p>Please refer to Schedule 6L-4.</p>

Schedule 6L-1
Enbridge Gas Community Expansion Project Proposal
Lanark and Balderson

Lanark & Balderson

EB-2019-0255
Schedule 6L-1
Redacted



Schedule 6L-2
Enbridge Gas Community Expansion Project Proposal
Lanark and Balderson

Table 3.2 - Customer Attachments Over The Rate Stability Period

Customer Type	Firm / IT	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>	Total
Residential	Firm		76	65	26	18	14	18	16	18	16	15	282
Commercial	Firm		-	21	8	4	2	1	1	1	1	1	40
Institutional	Firm		-	2	-	-	-	-	-	-	-	-	2
Agricultural	Firm		-	-	-	-	-	-	-	-	-	-	-
Industrial	Firm		-	3	2	1	1	1	1	1	-	-	10
Total Customers			<u>76</u>	<u>91</u>	<u>36</u>	<u>23</u>	<u>17</u>	<u>20</u>	<u>18</u>	<u>20</u>	<u>17</u>	<u>16</u>	<u>334</u>
Cumulative Customers			76	167	203	226	243	263	281	301	318	334	

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

Customer Type	Project Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Annual Volumes - m3						<u>9</u>	<u>10</u>	Total
Residential		87,836	251,149	356,565	407,262	444,401	481,539	520,657	559,775	598,893	634,411			4,342,487
Commercial		-	40,500	100,800	130,500	142,800	146,400	148,800	151,200	153,600	156,000			1,170,600
Institutional		-	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000			850,000
Agricultural		-	-	-	-	-	-	-	-	-	-			-
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>87,836</u>	<u>491,649</u>	<u>957,365</u>	<u>1,187,762</u>	<u>1,337,201</u>	<u>1,477,939</u>	<u>1,619,457</u>	<u>1,760,975</u>	<u>1,852,493</u>	<u>1,890,411</u>			<u>12,663,087</u>

Customer Type	Project Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Cumulative Volumes - m3						<u>9</u>	<u>10</u>	
Residential		87,836	338,985	695,550	1,102,812	1,547,212	2,028,751	2,549,408	3,109,183	3,708,076	4,342,487			
Commercial		-	40,500	141,300	271,800	414,600	561,000	709,800	861,000	1,014,600	1,170,600			
Institutional		-	50,000	150,000	250,000	350,000	450,000	550,000	650,000	750,000	850,000			
Agricultural		-	-	-	-	-	-	-	-	-	-			
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>87,836</u>	<u>579,485</u>	<u>1,536,850</u>	<u>2,724,612</u>	<u>4,061,812</u>	<u>5,539,751</u>	<u>7,159,208</u>	<u>8,920,183</u>	<u>10,772,676</u>	<u>12,663,087</u>			

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

	<u>Year 10</u>
Total Capital Costs	

Table 4.3 - Revenue Requirement Over The Rate Stability Period

	<u>Project Year</u>	<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>	Total
Revenue Requirement												

	<u>Year 10</u>
Closing Rate Base (net of proposed Section 36.2 funding)	

Table 5.1 - Total Amount of Section 36.2 Funding

Section 36.2 Funding Needed to Support the Project	\$ 12,673,429
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Table 5.2 - Section 36.2 Funding Amount Per Customer Served

Section 36.2 Funding Amount Per Customer Served	<u>Year 10</u> \$ 37,944
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Table 5.3 - Section 36.2 Funding Amount Per Volume (m3)

Section 36.2 Funding Amount Per Volume (m3)	<u>Year 10</u> \$ 6.70
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Table 6.1 - Distribution Charge

	<u>Project Year</u>	<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>
Distribution Revenue	\$	15,747	67,919	119,651	143,651	158,839	172,117	185,262	198,406	209,020	216,474	\$ 1,487,087
SES Revenue		20,202	113,079	220,194	273,185	307,556	339,926	372,475	405,024	426,073	434,795	2,912,510
Total Distribution Charge	\$	<u>35,950</u>	<u>180,998</u>	<u>339,845</u>	<u>416,837</u>	<u>466,395</u>	<u>512,043</u>	<u>557,737</u>	<u>603,430</u>	<u>635,094</u>	<u>651,268</u>	\$ <u>4,399,597</u>

Table 7.1 - Profitability Index (PI) Inclusive of Section 36.2 Funding

	<u>Net Present Value</u>
<u>Cash Inflow</u>	
Revenue:	
Distribution Revenue	
System Expansion Surcharge (SES) Revenue	
Total Revenue (A)	
Expenses:	
O&M Expense	
Municipal Tax	
Income Tax	
Total Expenses (B)	
Total Cash Inflow (C = A + B)	
<u>Cash Outflow</u>	
Gross Capital	
Proposed Section 36.2 Funding	
Change in Working Capital	
Total Cash Outflow (D)	
Profitability Index (PI) Inclusive of Section 36.2 Funding (C / D)	<u>1.00</u>

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

	<u>Net Present Value</u>	
<u>Cash Inflow</u>		
Revenue:		
Distribution Revenue		
System Expansion Surcharge (SES) Revenue		
Total Revenue (A)		
Expenses:		
O&M Expense		
Municipal Tax		
Income Tax		
Total Expenses (B)		
Total Cash Inflow (C = A + B)		
<u>Cash Outflow</u>		
Gross Capital		
Change in Working Capital		
Total Cash Outflow (D)		
Profitability Index (PI) Without Section 36.2 Funding (C / D)		

Schedule 6L-3
Enbridge Gas Community Expansion Project Proposal
Lanark and Balderson

Section 3.4 Lanark and Balderson

Total Forecasted Customers 334 Penetration Rate 65%

	Number of Customers	Current proportion of customer ¹	Estimated Conversion Cost ²	Estimated Annual Energy Costs (existing fuel)	Estimated Annual Energy Costs (natural gas)	Estimated Annual Savings per customer	Estimated Annual Savings	Estimated Annual GHG per customer - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) per customer switching to natural gas (tCO2e)	Estimated Annual GHG - Total Community - Existing Fuel (tCO2e)	Estimated Annual GHG Change (increased GHG is +ve/decreased GHG is -ve) total community switching to natural gas (tCO2e)
Existing Fuel / Heating Type											
Oil	70	21%	\$ 5,000	\$ 3,050	\$ 1,481	\$ 1,570	\$ 110,102	7.2	-2.7	503	(188)
Electricity F/A	30	9%	\$ 5,000	\$ 2,187	\$ 1,481	\$ 706	\$ 21,236	0.6	3.9	18	118
Electricity Baseboard	40	12%	\$ 12,000	\$ 2,187	\$ 1,481	\$ 706	\$ 28,315	0.6	3.9	23	157
Propane	147	44%	\$ 600	\$ 1,764	\$ 1,481	\$ 283	\$ 41,638	5.6	-1.1	821	(160)
Wood	30	9%	\$ 3,500	N/A	N/A	\$ -	N/A	N/A	N/A	N/A	N/A
Other	17	5%	\$ 5,000	N/A	N/A	\$ -	N/A				
Total	334	100%	\$ 31,100	\$ 9,188	\$ 5,923	\$ 3,266	\$ 201,290	13.9	4.1	1,365	(73)

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.

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.

	Emission 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)					
Consumption 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 m³ 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.

Schedule 6L-4
Enbridge Gas Community Expansion Project Proposal
Lanark and Balderson

Lanark and Balderson Community Expansion Project Pipeline Construction Schedule

Task Name	2022												2023												2024											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Environmental Assessments																																				
Permits & Approvals																																				
Leave to Construct Application and Approval																																				
Pre-Construction, Construction and Testing																																				
In Service																																				

Schedule 6L-5
Enbridge Gas Community Expansion Project Proposal
Lanark and Balderson



June 26, 2020

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

ATTENTION: Mr. Ian Ross, P. Eng, MBA
Director – Eastern Region Operations

Dear Sir:

RE: Expression of Support for Natural Gas Expansion to the Township of Lanark Highlands

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. Our municipality is one such area, and we are eager to bring this affordable, reliable fuel source to our residents and businesses.

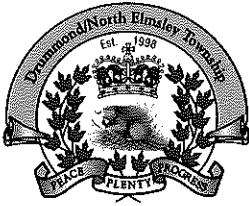
On behalf of the Township of Lanark Highlands, I would like to formally express our interest to have the Natural Gas Expansion to the Township of Lanark Highlands included on Enbridge Gas' list of projects being proposed to the Ontario Energy Board (OEB) for consideration for financial support through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

Peter McLaren
Reeve



The Corporation of the Township of Drummond/North Elmsley

310 Port Elmsley Road • Perth • Ontario • K7H 3C7

EB-2019-0255
Schedule 6L-5(b)

July 17, 2020

Dear Regional Director:

**RE: Expression of Support for Natural Gas Expansion to the
Township of Drummond/North Elmsley in the Hamlet of Balderson**

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. Our municipality 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 Drummond/North Elmsley, I would like to formally express our interest to have Balderson Hamlet project name 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 Bank 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.

If you have any questions with respect to the above, please do not hesitate to contact me at 613-267-6500.

Yours truly,

Stephen Fournier
Reeve

Schedule 6L-6
Enbridge Gas Community Expansion Project Proposal
Lanark and Balderson

EB-2017-0343

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 Drummond/North Elmsley

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

DATED at Toronto, March 29, 2018

ONTARIO ENERGY BOARD

Pascale Duguay
Manager, Application Policy and Climate Change

IN THE MATTER OF The Municipal
Franchises Act, R. S. O. 1950
Chapter 249 and amendments thereto;

AND IN THE MATTER OF an application
by The Consumers' Gas Company of
Toronto for a certificate of public
convenience and necessity to construct
works and to supply natural gas to
the Town of Perth in the County of
Lennox

B E F O R E:

A. R. Crozier, Chairman } Tuesday, the 12th day
W. R. Howard, Commissioner } of November, 1957.

CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

UPON THE APPLICATION of The Consumers' Gas Company of
Toronto (hereinafter called the Applicant) for a certificate
pursuant to the provisions of The Municipal Franchises Act,
R.S.O. 1950 Chapter 249 and amendments thereto and upon the
hearing of such application by the Board at the City of Toronto
on the 12th day of November, 1957 after due notice had been
given as directed by the Board in the presence of Counsel for
the Applicant no one else appearing the Board being pleased to
adjourn the said application until November 22nd, 1957 and the
same coming on that day in the presence of Counsel for the
applicant no one else appearing, upon consideration of the evidence
and exhibits produced at the hearing and upon hearing what was
alleged by Counsel for the Applicant,

1. THIS BOARD DOETH ORDER THAT a Certificate of Public
Convenience and Necessity be and the same is hereby granted to
The Consumers' Gas Company of Toronto for the supply of natural
gas to the inhabitants of the Town of Perth and for the
construction of the works necessary therefor,

2. The Board fixes the costs of this Application at \$10.00
payable forthwith by the Applicant.

DATED at Toronto this 9th day of December, 1957.

ONTARIO FUEL BOARD

.....
Chairman

.....
Commissioner

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IN THE MATTER OF The Municipal
Franchises Act, R. S. O. 1950
Chapter 249 and amendments thereto

AND IN THE MATTER OF an application
by The Consumers' Gas Company of
Toronto for a certificate of
public convenience and necessity to
construct works and to supply
natural gas to the Town of Perth
in the County of Lanark

CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

ZIMMERMAN, HAYWOOD & TURVILLE
111 Richmond Street West,
TORONTO, Ontario.