



POTENTIAL PROJECTS TO EXPAND ACCESS TO NATURAL GAS DISTRIBUTION

EB-2019-0255

MUNICIPALITY OF BROCKTON



August 4, 2020

Submitted by
EPCOR Natural Gas Limited Partnership
39 Beech St E
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August 4, 2020

DELIVERED VIA RESS & COURIER

Attention: Registrar

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Long:

Re: Potential Projects to Expand Access to Natural Gas Distribution - File No. EB-2019-0255

EPCOR submits the Municipality of Brockton's ("Brockton") Potential Project to expand access to Natural Gas Distribution. This submission has been filed through the Board's Regulatory Electronic Submission System and two paper copies filed at the OEB's address. The following highlights some key background information on this submission:

1. In recent years (2015-2018) many residents and agricultural entrepreneurs of the community of Brockton attended numerous open houses organized by EPCOR related to extending the natural gas service to the Southern Bruce project area. At the time EPCOR was asked for service by customers in the vicinity of the natural gas pipeline which travels through their municipality. In mid-2018, the Council of Brockton, while approving EPCOR's franchise on the natural gas mainline to Southern Bruce, sought from EPCOR a commitment to make natural gas available to their community at first opportunity. The section 36.2 funding opportunity made available by the Government of Ontario is opportune to provide service to Brockton; EPCOR is fulfilling its commitment to Brockton through this application.
2. Since 2015, EPCOR has engaged with the community of Brockton at the customer level, as well as at the local government level to prepare for this application with the objective of saving heating costs for individual residents, but just as importantly to make the agricultural business competitive in-line with their neighboring communities that have for many years enjoyed such service.
3. Over the course of the last two years, in anticipation of this opportunity, Brockton and EPCOR jointly worked to identify strategic areas in north Brockton where businesses and residents could participate in developing this project. In 2019, Brockton and EPCOR co-funded a customer survey to confirm the local interest for natural gas. The result turned out to be the most positive outcome for support of natural gas to the community. The survey convinced the Brockton Council to extend the system beyond what was originally contemplated, requesting EPCOR through its expansion plan to reach as many customers as possible.
4. EPCOR's plan targets many of the community's critical economic enterprises such as Young and Langs grain drying operations as well as numerous poultry operations including [REDACTED], New-Life Mills, Berry Bush and Gresta farms. Many other farms including dairy, beef and small drying operations are also to be served including providing natural gas access to Marl Creek Renewables biogas facility. This project not only intends to connect customers in the heart of Brockton but also connects customers on the borders of the community with the Township of Arran-Elderslie, Municipality of Kincardine, and Municipality of West Grey. Communities being reached include: Elmwood, Vesta, Pinkerton, Glammis, Cargill, Chepstow, Greenock, and Riversdale.

This project is intended to connect the most vulnerable segment of the community residents to improve their social well-being, supply reliability, and cost affordability drivers to deliver an overall economic boost to the greater community and region.

5. EPCOR's service offering in the Phase 2 expansion of natural gas also envisages leveraging natural gas servicing to individual properties to meet Ontario's goal of communications connectivity by making in-home broadband services available to all residents and businesses through a fibre optic connection installed along side of natural gas. Affordable, high-bandwidth internet for these underserved remote and rural reaches of Ontario will be brought immediately inside their homes and offices. To this end EPCOR has obtained TSSA approval (see Schedule 8) for running a conduit containing fiber optic communication lines along with the natural gas service through which it expects to provide the highest level of service to these residents. To date, many customers that have been underserved and will benefit from this service in the post-Covid-19 period, and enjoy equal or better network connectivity currently experienced by their urban counterparts in large cities and towns across the province. Note that our application is strictly related to the provision of natural gas service only and any broadband related business will be addressed as a stand alone and independent business separate from the natural gas service provisions of this application.
6. The Municipality of Brockton in its support of EPCOR's application is willing to extend the same support extended to EPCOR by the three neighboring municipalities of Southern Bruce with respect to issuing EPCOR the franchise on the serviced area, an exemption of pipe taxes for up to 10 years, and seek similar support from the County and member local governments, and any necessary support extended to EPCOR in the development of EPCOR's Southern Bruce Project. Brockton recognizes that this service will form part of the greater Southern Bruce Project and will receive all of the synergistic value including same rates that the Southern Bruce natural gas project has to offer and the vital role the Southern Bruce Project has played in making natural gas service now finally available to the northern reaches of the Brockton.
7. The Table below captures the critical metrics on the Project to demonstrate its Project worthiness for grant funding:

Description	Proposed EBO 188 Plan
Project Capex (\$M)	\$28.4
Grant Funding (\$M)	\$20.3
Percent Grant Funding (%)	72%
Target 10 Year Connections (#)	499
Cumulative 10 year Volume (m ³)	25.75 M
Residential 10 year Volume (m ³)	9.33 M
Commercial/Industrial 10 year Volume (m ³)	16.42 M

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

Sincerely,

[Original signed by]

Susannah Robinson
Vice President, Ontario Region
EPCOR Natural Gas Limited Partnership
SRobinson@epcor.com
647-730-0010

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Part 1 - NAME OF PROPONENT

NAME:	EPCOR Natural Gas Limited Partnership
FILE NO:	EB-2019-0255
PROJECT NAME:	Municipality of Brockton
ADDRESS OF HEAD OFFICE:	39 Beech St E, Aylmer, ON N5H 3J6
TELEPHONE NUMBER:	1 (519) 773-5321
NAME OF INDIVIDUAL TO CONTACT:	Susannah Robinson
OFFICE TELEPHONE NUMBER:	1 (647) 730-0010
CELL PHONE NUMBER:	1 (416) 722-6565
EMAIL ADDRESS:	srobinson@epcor.com

Part 2 - DESCRIPTION OF PROPONENT'S TECHNICAL EXPERTISE AND FINANCIAL CAPABILITY

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

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

EPCOR Natural Gas Limited Partnership ("ENGLP"), a subsidiary of EPCOR Utilities Inc., and is a Ontario Energy Board rate-regulated natural gas utility currently operating in Aylmer, Ontario and the region of Southern Bruce (Township of Arran-Elderslie, Municipality of Kincardine, and Township of Huron-Kinloss). See Figure 2-1 below for current EPCOR Ontario operations locations.

Part II of the application is not applicable to ENGLP.



Figure 2-1: EPCOR Operations in Ontario

2.1 Describe the proponent's technical expertise to develop, construct, operate and maintain a natural gas distribution system.

Not applicable.

2.2 Describe the proponent's financial capability to develop, construct, operate and maintain a natural gas distribution system, and provide the following:

- *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.*

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.

Not applicable.

Part 3 - DESCRIPTION OF AND SUPPORT FOR PROJECT

3.1 Provide a general overview of the project which is to include the following: communities to be connected, including whether the project would serve any on-reserve Indigenous communities; existing population of each community by residential, commercial/institutional and industrial sectors; routing; length of pipeline; and nominal pipe size.

For a proponent that is not rate-regulated as a natural gas distributor by the OEB, provide a high-level description of sources of the commodity, upstream transportation, and any other relevant gas supply considerations. For all proponents proposing projects using CNG and/or LNG, provide a high-level description of the approach to procuring supply, including the infrastructure that will be required.

EPCOR has been working with the Municipality of Brockton to bring natural gas into the northern regions of Brockton. A letter of support has been provided from the Municipality of Brockton, Schedule 4.

The total number of potential connections on areas EPCOR seeks to serve is 744 with a forecasted connection of 499. There are significant number of farms which have expressed interest in connecting to natural gas including a number of small communities.

Communities to be connected

The proposed Project intends to provide service to rural customers along the supply laterals which are to be installed throughout Brockton, as well as the following communities:

- Elmwood
- Vesta
- Solway

- Glamis
- Cargill
- Chepstow
- Pinkerton
- Narva
- Greenock
- Riversdale

The Project does not support any on-reserve Indigenous communities at this time.

Market Population and Target Customers

The proposed Project area has an estimated market population of 756 customers. An applied market conversion rate of 66% assumes a 10 year forecasted customer attachment totaling 501 customers.

Residential Population Cx: 682

Commercial/Institutional/Industrial Cx: 44

Agricultural Cx: 30

This system is strategically designed to connect a significant number of agricultural customers in the region who are currently seeking natural gas supply. Customers including: Youngs Farm, Langs Farm, New-Life Mills, [REDACTED], Berry Bush Farms, [REDACTED] will have service extended to their facilities. EPCOR intends to extend service to most of the 44 identified small/medium/large farming customers in Brockton.

EPCOR has also been in discussions with Marl Creek Renewables, a local biogas producer to extend service to Solway in order to begin providing access for gas supply or the injection of renewable natural gas in to the local gas network.

System Description

The proposed natural gas system consists of polyethylene (“PE”) 4-inch and 2-inch nominal sizes (“NPS 4”, and “NPS 2”) with a total length of approximately 107km. The following is an approximate breakdown of the supply laterals by material, size and length.

Pipe Material	Diameter (NPS)	Length (metres)
Polyethylene	4	37,300
Polyethylene	2	69,700
Total System Length (m)		107,000

Figure 3-1, outlines the proposed system to serve areas in Brockton, West Grey, Arran-Elderslie, and Kincardine. A larger image of the system is available in Schedule 1 of this application.

All lines will be constructed on public road right of ways on County and municipal road allowances.

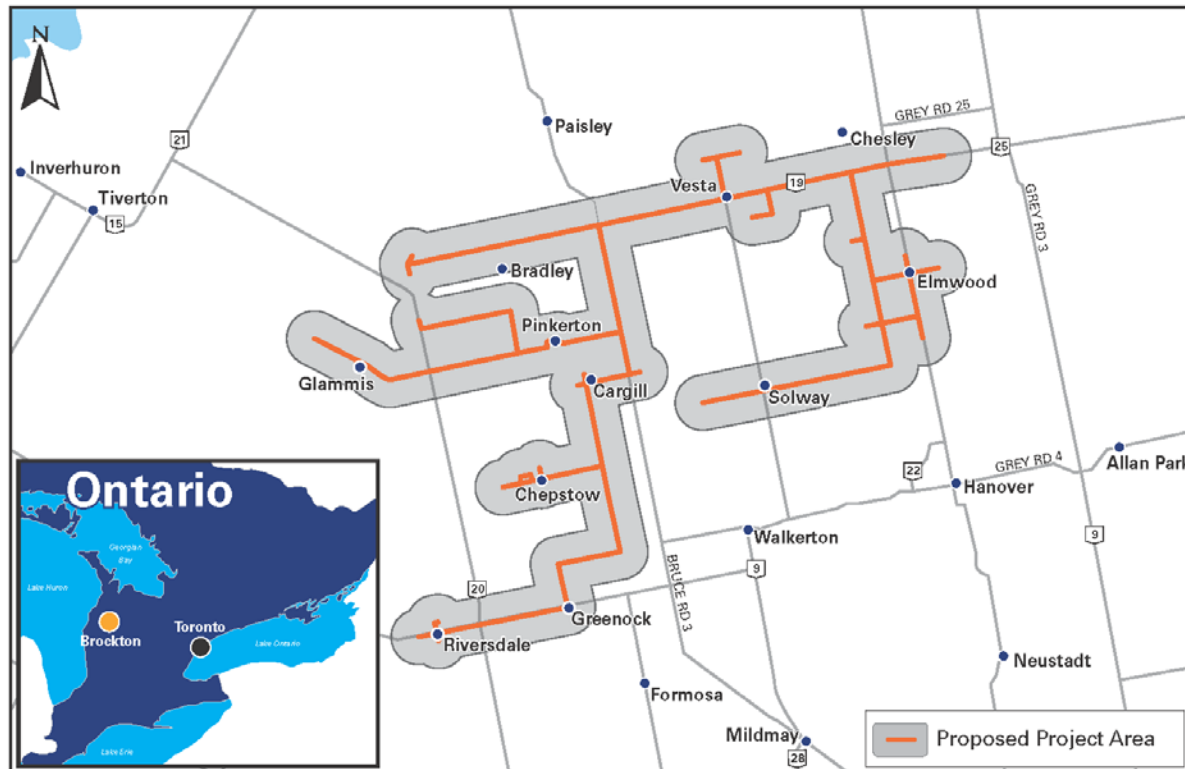


Figure 3-1: Map of Proposed Project Area

Elmwood Line

The Elmwood natural gas supply will be made up of 4-inch and 2-inch polyethylene ("PE"). The piped supply originates from the South Bruce mainline at the Chesley interconnect, which is located at the intersection of the Bentinck Sullivan Townline (#19) and Sideroad 30 N. Interconnection at these stations has been planned ahead of time in order to accommodate service to Brockton from stations which will already be setup and providing service to Chesley. An NPS 4 PE supply line proceeds south to Concession Road 6 where it then proceeds west. NPS 2 PE laterals are to be extended at Concession Road 12, Concession Road 10 and Concession Road 8 as well as distribution system at Elmwood and an NPS 2 PE line extension to the west along Concession Road 6.

Cargill/Chepstow Line

The Cargill/ Chepstow natural gas supply will be made up of NPS 4 PE and NPS 2 PE. The piped supply will originate at the South Bruce mainline at the Paisley interconnect, which is located at the intersection of Bruce Road 3 and Brant-Ellerslie Sideroad 5. The Paisley station has also been designed to accommodate connection to service Brockton. This will save on station costs necessary to provide service from the high pressure steel mainline. From here, the NPS 4 PE line proceeds south to Cargill Road (#32), west to Greenock Brant Road and south to County Road 31. NPS 2 PE laterals will also be constructed at County Road 15, Cargill (including hamlet distribution), Chepstow Road (including Chepstow distribution) as well as an extension south on Greenock Brant Road (includes Greenock and Riversdale)

An extension off of the Cargill/Chepstow line travels west to Pinkerton on #15 and extends beyond all the way to Glammis in Kincardine. This extension is intended to connect a number of poultry operations located in Glammis and Narva.

South Bruce Mainline Connections

As part of this Project EPCOR has also identified approximately 60 customers located along the NPS 8 steel mainline supplying the South Bruce system from Dornoch. Customers located on this line have not had the option to connect. As part of the Brockton system project, two longer lines, one traveling north of Vesta on Sideroad 15 S connects agricultural customers in Arran-Elderslie. A similar NPS 2 PE line travels south of the mainline on Sideroad 20 N in Brockton connecting an agricultural customer. Farm taps have been included in this project to connect customers on either side of the steel mainline if they choose to connect.

System Supply

As described above the Elmwood Line, the Cargill/Chepstow Line and customers along the steel mainline are all serviced from a steel high pressure system. Customers on this system receive natural gas on this system through the EPCOR Dornoch custody transfer station. Connections on this system have adequate supply of the gas and pressure providing service year round. No reinforcement is required to provide service to Brockton.

Support and Synergistic Approach

EPCOR has received significant support for its proposed project, in order to connect a vast number of customers throughout Brockton. EPCOR would seek to leverage existing systems and interconnects to supply Brockton, as well ongoing construction projects related to Southern Bruce in order to promote the development of the natural gas system. In addition to these synergistic approaches, EPCOR is currently working to further its deployment of fibre optic communications along with its natural gas installations. EPCOR has recently received approval from the TSSA (see Schedule 8) on its approach to pursue this application for co-installing the two services simultaneously in order to provide the most cost effective and prudent approach to spreading high-speed broadband internet service to as many customers in Ontario as possible. Although, more work needs to be completed to continue with this approach, but the TSSA's approval already allows EPCOR to proceed. During this Covid-19 period, EPCOR has spoken with many communities, and now more than ever has there been a demand for high speed internet services, as many are forced to work from their homes. EPCOR will work with any community in order to support the development of the co-installed services and improve this vital service offering to customers.

Note: EPCOR's application is strictly related to the provision of natural gas service only and any broadband related business will be addressed as a stand alone and independent business separate from the natural gas service provisions of this application.

- 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.

Refer to Schedule 2, Table 3.2 – Annual and Cumulative Customer Attachments.

- 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.

Refer to Schedule 2, Table 3.3 – Annual and Cumulative Forecast Volumes.

- 3.4 Provide the estimated conversion costs to convert each of the existing heating systems (e.g., propane forced air, oil forced air, electric forced air and electric baseboard) and water-heating systems (e.g., electric, oil and propane) to natural gas. To the extent available, provide information on the current proportion of customers on each type of heating system.

Provide the estimated annual costs of the existing alternative fuels relative to natural gas, including the annual savings with natural gas. The calculation of household energy costs for natural gas should include conversion costs, commodity costs, associated upstream transportation costs to Ontario, incremental CNG and LNG costs (where applicable), costs under the federal Greenhouse Gas Pollution Pricing Act 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.

Refer to Schedule 3, Table 3.4 – Estimated Conversion Costs.

Table 3.4 provides the following:

- Estimated conversion costs to convert each of the existing heating and water heating systems for residential customers on the system;
- Estimated annual costs of the existing alternative fuels relative to natural gas, including annual savings with natural gas;
- Calculation of household energy costs for natural gas including system conversion costs, commodity costs, and associated upstream costs, costs associated with the *Greenhouse Gas Pollution Pricing Act*, and distribution costs.
- Assessment of household energy costs impacts including GHG emission estimates related to converting existing heating and water heater systems to natural gas.
- All major assumptions and references are provided.

3.5 Provide the proposed schedule for construction including the start date, all major milestones (with any phases) and the projected in-service date.

The following Table 8.2 is provided in conjunction with the response requested in the Application Guideline Part 8 – 8.2. Please refer to Table 8.2 and the associated comments later in this response in order to understand the timing and rationale through Section 36.2 award to system in-service, taking into account associated construction schedule timing and dates.

Table 8.2 – OEB Approval, System Construction and In-Service Date

Task	Duration (days)	2020	2021					2022				2023			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
MENDM Award of Section 36.2 NG Grant Funding	-														
Community Consultation / Initiate EA & LTC	260														
Submit LTC - OEB Approval (LTC, Rate Order)	210														
Pre-Construction	85														
Construction & Commissioning	210														
System In Service	-														

3.6 Provide letter(s) from the Band Council(s) and/or local government, as applicable, stating support for the project, including details of any commitment to financial support.

Refer to Schedule 4 for letters of support from:

- Municipality of Brockton
- Ontario Federation of Agriculture (OFA)
- Marl Creek Renewables Inc. – Local Biogas Producer and Farmer
- Youngs Farm – Large Grain Drying Operation
- Langs Farm – Large Grain Drying Operation
- New-Life Mills – Poultry Operation
- Berry Bush Farms – Poultry and Grain

3.7 Provide a copy of the Certificate of Public Convenience and Necessity (Certificate) for the area to be served, if held by the project proponent. If not, indicate whether another entity holds the Certificate for the area to be served, if known, and if so, identify the Certificate holder.

Where the project proponent holds a Certificate for the areas to be served, specify the boundaries of the Certificate and indicate whether the boundaries encompass the entire area that would be supplied by the proposed project.

It is EPCOR's understanding that Enbridge currently holds the Certificate of Public Convenience and Necessity ("CPCN") for the Municipality of Brockton, as well, an associated Municipal Franchise Agreement. However the areas EPCOR proposes to serve currently do not receive natural gas services, and at the request of the Municipality has proposed to service these areas.

EPCOR through the award of this application would be seeking CPCN rights beyond its current Limited CPCN, which only allows gas to be transmitted through Brockton. EPCOR would be seeking to operate and distribute natural

gas in the Municipality of Brockton and as well the Municipality of West Grey, and as such serve the following communities in Brockton or through the proposed Brockton Project:

- Elmwood (Brockton & West Grey)
- Vesta
- Chepstow
- Cargill
- Chepstow
- Pinkerton
- Narva
- Glamis (Kincardine)
- Greenock
- Riversdale

Refer to Schedule 5 for EPCOR's existing CPCN's for the Municipality of Kincardine and the Township of Arran-Elderslie. The Municipality of Brockton has committed to issue a franchise to EPCOR for the areas proposed for service, jointly by the municipality and EPCOR.

Part 4 - COST OF PROJECT

4.1 Confirm that the proposed project includes a ten-year rate stability period.

The proposed project includes a ten-year (10 yr.) rate stability period.

4.2 Provide the total forecast of capital costs (including any forecast of upstream reinforcement costs) of the project at the end of the rate stability period (i.e. year ten).

Where applicable, the inflation rate to be used is the most recent quarter average GDP IPI FDD. For interest during construction, the proponent is to use the OEB-prescribed interest rate for construction work in progress (CWIP).

For projects proposing to use CNG and/or LNG, the costs of required infrastructure and other associated costs must be included as part of the total project capital costs.

Include any upstream reinforcement costs in the total cost of the project. To the extent that the reinforcement costs for an incumbent utility's proposed project are materially different from the reinforcement costs that the utility has estimated for another proponent's project in the same area, the incumbent utility must identify in its filing that two separate estimates exist and explain the reasons for the differences.

Refer to Schedule 6, Table 4.2.

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:

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).

Refer to Schedule 6, Table 4.3.

Part 5 - SECTION 36.2 FUNDING

5.1 Provide the total amount of section 36.2 funding needed to support the project.

Refer to Schedule 6, Table 5.1, for compiled Section 36.2 funding required.

5.2 Provide the section 36.2 funding amount per customer number served in year ten of the project.

Refer to Schedule 6, Table 5.2, for compiled Section 36.2 funding required.

5.3 Provide the section 36.2 funding amount per volume (m3) in year ten of the project.

Refer to Schedule 6, Table 5.3, for compiled Section 36.2 funding required.

Part 6 - DISTRIBUTION CHARGE

- 6.1 Provide the estimated amount that the proponent proposes to recover from residential customers on an annual basis (inclusive of any system expansion surcharge) in the form of an estimated annual distribution charge inclusive of fixed and variable charges over the rate stability period.

Provide a confirmation that there would be no material cross-subsidization between rate classes.

Refer to Schedule 6, Table 6.1 for the distribution charge inclusive of fixed and variable charges over the ten year (10 yr.) rate stability period.

EPCOR confirms that there is no material cross-subsidization between rate classes.

Part 7 - PROFITABILITY INDEX / BENEFIT TO COST RATIO

- 7.1 Provide, in a summary table, the expected Profitability Index (PI) of the project, inclusive of the proposed section 36.2 funding. Provide any major assumptions used in the calculation, and specify all proposed section 36.2 funding, revenue from rates (including any proposed system expansion surcharges), capital contributions and municipal tax holidays or other municipal financial support.

The project must have a PI of 1.0. The PI is to be calculated based on an individual project (i.e. not a “portfolio” of projects).

Refer to Schedule 7, Table 7.1 for the expected Profitability Index (“PI”) for the project inclusive of Section 36.2 funding. Assumptions for this calculation are:

- For this Project EPCOR has assumed a 10 year municipal tax holiday as part of the property tax on pipelines for this calculation.

- 7.2 Provide, in a summary table that otherwise meets the requirements of section 7.1, the expected PI of the project without the proposed section 36.2 funding.

Refer to Schedule 7, Table 7.2 for the expected Profitability Index (“PI”) for the project without Section 36.2 funding. Assumptions for this calculation are:

- For this Project EPCOR has assumed a 10 year municipal tax holiday as part of the property tax on pipelines for this calculation.

Part 8 - OEB APPROVALS

8.1 Identify any OEB approvals that will be required for the project (Leave to Construct, Certificate of Public Convenience and Necessity, Municipal Franchise Agreement, Rate Order)

In order to complete this project EPCOR requires the following OEB approvals in order to begin distributing natural gas to the identified customers.

OEB Approvals:

- Leave to Construct, including a Certificate of Public Convenience and Necessity and Municipal Franchise Agreement.
- Rate Order confirming Southern Bruce rates will be applied to the customers in the Municipality of Brockton as part of this project, as requested by EPCOR.

8.2 For OEB approvals identified in section 8.1, provide a schedule for applying for them and the date by which each of these approvals is required to meet the proposed in-service date. For this purpose, proponents should reference the performance standards posted on the OEB's website and where applicable assume a written hearing process.

Upon award of Section 36.2 funding for this Project, EPCOR would continue its process of consultation with the Municipality of Brockton. EPCOR would look to initiate the Environmental Assessment ("EA") process as soon as possible in Q4 of 2020 in order to complete the LTC as soon as possible. The current and ongoing construction of the South Bruce system could be determined to be significantly strategic in completing this expansion project in the region. Construction crews and other natural gas experts already mobilized in the region could present advantageous on many project development fronts. Regardless initiating the EA process along with further project development and consultation with communities and first nations will be critical. EPCOR would look to have submitted to the OEB its Leave to Construct and request at the latest by the start of Q3 2021. EPCOR would look to have submitted to the OEB its Leave to Construct and request for CPCN and MFA approval at the latest by the start of Q3 2021. EPCOR would plan to have its rate order submitted in conjunction with the LTC for simultaneous approval. An early/mid Q1 2022 OEB LTC approval would mean EPCOR could begin expansion of the system and begin connecting customers as soon as possible. Rate order approved alongside the LTC could mean customer connections could occur earlier than identified by the proposed in-service date, mid-to-late Q3 2022. Construction for this project would only require a single year and EPCOR would be looking to expedite the process in order to make use of any potential synergies existing while contractors are working on finalizing the South Bruce natural gas system. EPCOR believes the conservative timeline, if tightened could realize many synergistic processes not currently considered, based on the stand-alone requirements of the natural gas grant application guidelines. EPCOR consulted the performance standards for processing applications for developing the proposed schedule and has aligned the schedule for a realistic approval OEB approval dates, construction start and system in-service dates. The proposed timeline is conservative and realistic.

Table 8.2 – OEB Approval, System Construction and In-Service Date

Task	Duration (days)	2020	2021				2022				2023			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
MENDM Award of Section 36.2 NG Grant Funding	-													
Community Consultation / Initiate EA & LTC	260													
Submit LTC - OEB Approval (LTC, Rate Order)	210													
Pre-Construction	85													
Construction & Commissioning	210													
System In Service	-													

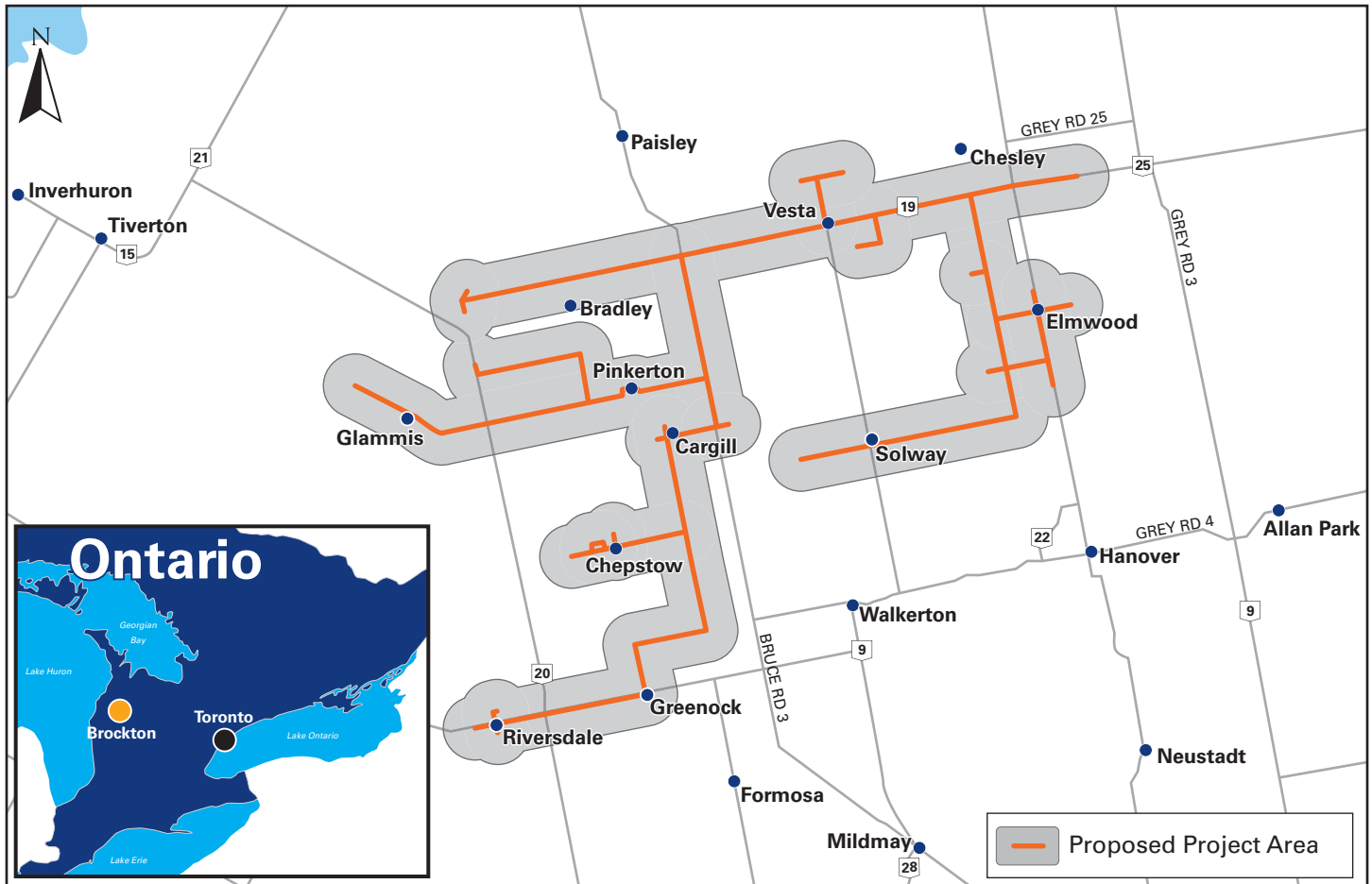


Table 3.2 - Annual and Cumulative Customer Attachments

Customer Type	Service	Project Year										Total
		1	2	3	4	5	6	7	8	9	10	
Residential	Firm	153	156	68	50	48	-	5	-	1	-	481
Commercial/Agricultural/Institutional	Firm	10	5	-	-	-	-	-	-	-	-	15
Industrial	Firm	4	1	-	-	-	-	-	-	-	-	5
Agricultural - Seasonal	Interruptible	-	-	-	-	-	-	-	-	-	-	-
Total Customer Attachments		167	162	68	50	48	-	5	-	1	-	501
Total Cumulative Customer Attachments		167	329	397	447	495	495	500	500	501	501	

Table 3.3 - Annual and Cumulative Forecast Volumes

Customer Type	Unit	Project Year										Total
		1	2	3	4	5	6	7	8	9	10	
Residential	m3	161,700	485,100	715,000	830,500	928,400	979,000	979,000	979,000	979,000	979,000	8,015,700
Commercial/Agricultural/Institutional	m3	262,758	631,862	752,327	788,206	814,672	819,378	832,318	845,258	847,618	849,978	7,444,373
Industrial	m3	-	-	-	-	-	-	-	-	-	-	-
Agricultural - Seasonal	m3	938,391	1,039,890	1,039,890	1,039,890	1,039,890	1,039,890	1,039,890	1,039,890	1,039,890	1,039,890	10,297,401
Total Annual Volume	m3	1,362,849	2,156,852	2,507,217	2,658,596	2,782,962	2,838,268	2,851,208	2,864,148	2,866,508	2,868,868	25,757,474

Customer Attachments are assumed to occur mid-year for the purposes of calculated Forecast Volumes

Customer Type	Unit	Project Year										
		1	2	3	4	5	6	7	8	9	10	
Residential	m3	161,700	646,800	1,361,800	2,192,300	3,120,700	4,099,700	5,078,700	6,057,700	7,036,700	8,015,700	
Commercial/Agricultural/Institutional	m3	262,758	894,620	1,646,946	2,435,152	3,249,823	4,069,201	4,901,519	5,746,777	6,594,395	7,444,373	
Industrial	m3	-	-	-	-	-	-	-	-	-	-	
Agricultural - Seasonal	m3	938,391	1,978,281	3,018,171	4,058,061	5,097,951	6,137,841	7,177,731	8,217,621	9,257,511	10,297,401	
Cumulative Volume	m3	1,362,849	3,519,701	6,026,917	8,685,513	11,468,474	14,306,742	17,157,950	20,022,098	22,888,606	25,757,474	

Table 3.4 - Estimated Conversion Costs

Existing Fuel / Heating Type	Number of Users	User Distribution across sources	Conversion Cost to Natural Gas	Annual Costs for Existing Fuel (Inclu. HST)	Annual Costs Natural Gas (Inclu. HST)	Annual Savings per User	Annual Savings per Community	Annual GHG per User-Existing Fuel (tCO2e)	Annual GHG Increase(+)/Decrease(-) per User on switching to Natural Gas (tCO2e)	Annual GHG per Community-Existing Fuel (tCO2e)	Annual GHG Increase(+)/Decrease(-) per Community on switching to Natural Gas (tCO2e)
Oil	62	14%	\$ 6,500	\$ 2,891	\$ 1,547	\$ 1,344	\$ 83,739	6.5	-2.4	408	-151
Electricity F/A	13	3%	\$ 6,000	\$ 2,974	\$ 1,547	\$ 1,427	\$ 19,056	1.3	2.9	17	38
Electricity Baseboard	18	4%	\$ 12,500	\$ 2,974	\$ 1,547	\$ 1,427	\$ 25,409	1.3	2.9	22	51
Propane	214	48%	\$ 1,200	\$ 2,053	\$ 1,547	\$ 506	\$ 108,051	5.0	-0.9	1071	-191
Wood	98	22%	\$ 3,500								
Other	40	9%	\$ 5,000								
Total	445	100%					\$ 236,255	14.1	2.4	1518	-252

Conversion costs include installation and water heater.

All costs and emission values are an estimation.

Due to availability of information calculations provided above are for residential customers only. Actual GHG savings will be greater when accounting for all Customer Types

Fuel Type	Emission Metrics				
	CO2	CH4	N2O	CO2e	Units
Natural Gas	1,863 g/m3	0.037 g/m3	0.035 g/m3	0.00187	tonnes/m3
Heating Oil	2,725 g/L	0.006 g/L	0.031 g/L	0.00274	tonnes/L
Propane	1,510 g/L	0.027 g/L	0.108 g/L	0.00154	tonnes/L
Electricity	56 g/kWh	-		0.00006	tonnes/kWh
Wood	-	-	-	-	-

Emission Factor Sources:

Natural gas CO₂, CH₄, N₂O , heating oil and propane CO₂, CH₄, N₂O, CO₂e factors: Guideline for Quantification, Reporting and Verification of GHG Emissions - Ontario Ministry of Environment, Conservation and Parks

Electricity: Sourced from IESO (Independent Electricity Systems Operator), Ontario, July 20th

Consumption Equivalent			Price per Unit		
Fuel Type	Unit	Volume (m3)			
Gas	m3	2,200	Gas (incl. Fixed)	\$/m3	0.62
Heating Oil	L	2,395	Heating oil	\$/L	1.07
Electricity	kWh	22,375	Electricity	\$/kWh	0.12
Propane	L	3,249	Propane	\$/L	0.50

Notes:

Gas prices- Rate 1 Filing, December Rate Order, EPCOR

Heating Oil Prices correspond to the pre-pandemic Toronto prices (StatCan), January 2020

Electricity prices correspond to Westario distribution rates and includes the new Ontario Electricity Rebate (OER)

Propane prices correspond to the latest EDPRO residential rates for Zone 1 (July 9th 2020)²

All costs exclude HST.



June 16, 2020

EPCOR Natural Gas LP
Suite 710 – 55 University Avenue
Toronto ON
M5J 2H7

Attention: Susannah Robinson – Vice President Ontario Region

Dear Ms. Robinson,

**SUBJECT: MUNICIPALITY OF BROCKTON ACCESS TO NATURAL GAS UNDER
THE OEB PHASE 2 GRANT**

The Municipality of Brockton (“Brockton”) is very pleased to provide this letter of support to EPCOR towards their plan to extend natural gas service to the various businesses and residents in the natural gas deprived area of our Municipality. Over the last number of years various members of our community repeatedly reached out to the other local gas utility to acquire service but this was never made available. Since 2015 thru 2018 our community attended the numerous open houses organized by EPCOR on extending the natural gas service to Southern Bruce. At the time you assured us with a commitment to service the customers in the vicinity of the natural gas line that travels through our municipality. You reassured us again during our approval to extend to you the franchise to the pipeline in summer of 2018 despite the limited nature of the franchise servicing customers in Brockton. Regardless of the original limitation, you never wavered from your pledge to service our community. When the Phase 2 provincial grant was announced in 2019 you broadened your scope and helped to co-fund surveys of the residents that could possibly be served with an expanded natural gas network. The outcome of the surveys was overwhelmingly positive and welcomed by the residents. We thank you for being a committed partner with us on this journey that has taken you five years to reach this moment, not to mention the risk capital you have invested on this Project to benefit our residents.

This Project back in 2015, and more importantly today, remains of significance to our community’s economic wellbeing and will generate the much-needed economic activity and savings for our residents and businesses. We are indeed very pleased with your current plan under the Phase 2 grant application to extend this service to the Municipalities northern reaches where residents have long indicated to us that they



have been denied the cost-effective heating costs that the residents and businesses receive in the southern part of our Municipality.

We therefore, in the strongest sense, endorse this Project and wish you the success in being awarded the funding to extend the natural gas service to parts of our community, which require this essential service as confirmed in our joint survey.

While EPCOR's application does not service the entirety of northern Brockton we know, from the commitment to date that as our trusted partner you will ultimately extend service to the additional pockets of Brockton, Kincardine and West Grey, where natural gas is also desperately required. We believe, EPCOR's current Southern Bruce natural gas system is strategically positioned to best serve customers in northern Brockton allowing this access to a local high-pressure steel mainline well suited to bring service to additional future customers in Brockton, especially once these initial routes are developed.

The Municipality of Brockton in its support of EPCOR's application is willing to extend the same support extended to EPCOR by our neighbouring municipalities of Arran-Elderslie, Huron-Kinloss and Kincardine with respect to **issuing you the franchise on the serviced area, an exemption of pipe taxes for up to 10 years**, and seek similar support from the County and member local governments, and any necessary support extended to you in the development of your project for the neighbouring communities.

We appreciate all the work EPCOR has invested on this initiative over the few years in order to make this application possible. We remain very enthusiastic on this initiative, and if successful, we are convinced this Project will boost the Municipality economically given the recent events of a slowdown in the economy of the Country due to matters outside all of our control.

Sincerely,

On Behalf of the Mayor and Council of the Municipality of Brockton



Mayor Chris Peabody



Ontario AgriCentre
Suite 206 – 100 Stone Road West
Guelph, ON N1G 5L3

Tel: 519.821.8883

Fax: 519.821.8810

July 29, 2020

Thomas Stachowski, Business Development
EPCOR Commercial Services
735 Queen St.
Kincardine, ON
N2Z 1Z9
Email: TStachowski@epcor.com

Mr. Stachowski:

The Ontario Federation of Agriculture (OFA) is Canada's largest voluntary general farm organization, representing more than 38,000 farm family businesses across Ontario. These farm businesses form the backbone of a robust food system and rural communities with the potential to drive the Ontario economy forward.

Secure, reliable, and reasonably priced energy is important to help sustain Ontario's farm sector. For Ontario's food chain to remain competitive, farms need natural gas to heat, cool and ventilate storage and livestock facilities, elevator companies need natural gas to dry grains and oilseeds, and local food processors need gas to remain local.

OFA welcomes the opportunity to provide its perspective on the natural gas project EPCOR has proposed to construct in the Brockton area. OFA encourages natural gas access proposals to consider farm opportunities along multiple routes.

New rural residential customers will also benefit from access to natural gas as larger volume agricultural users are served under this proposal. In addition to residential connections, the Brockton proposal would develop natural gas service to the Elmwood area, including a few poultry operations, small grain drying operations, and an agricultural biogas digester opportunity. A second line in the region is meant to bring service to two large grain drying operations and service several poultry farms near Gammis, Narva and Pinkerton. This main expansion in Brockton would support agricultural customers in multiple municipalities and Townships including, West Grey, Arran-Elderslie, and Kincardine.

The Ontario Federation of Agriculture strongly supports the proposed expansion in the Brockton area.

Sincerely,

A handwritten signature in black ink, appearing to read 'Keith Currie', is written over a light blue horizontal line.

Keith Currie
President

Marl Creek Renewables Inc.
644 Sideroad 20
RR #1 Elmwood, Ontario
N0G 1S0

August 2, 2020

EPCOR Natural Gas LP
Suite 710 – 55 University Avenue
Toronto ON
M5J 2H7

Attention: Susannah Robinson – Vice President Ontario Region

Dear Ms. Robinson,

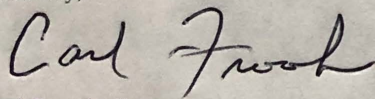
MARL CREEK RENEWABLES SUPPORT OF NATURAL GAS EXPANSION TO BROCKTON

Marl Creek Renewables Inc. ("Marl Creek") is pleased to provide EPCOR this letter of support for its plans to expand its Southern Bruce natural gas system into the Municipality of Brockton and provide homes, farms and business access natural gas. EPCOR has expressed its intent to bring service beyond the Marl Creek biogas facility in Brockton, northeast of Walkerton.

Marl Creek has been operating since 2012, processing beef manure, food process waste, and animal processing waste. The biogas produced is currently used to generate electricity through the use of 3 CHP units to satisfy existing FIT contracts. Currently, the facility is producing excess biogas which cannot be utilized. Marl Creek has been in discussions with EPCOR to seek alternatives for connecting our system to natural gas for potential RNG production. With the growing demand for RNG and production of biogas from food, agricultural and process waste, Marl Creek hopes to be strategically setup to further expand its facility in coming years to meet the growing market and develop further economic opportunities in the Municipality of Brockton.

Marl Creek through ongoing discussions with EPCOR, feels comfortable their expansion into Brockton will allow our facility to supply RNG to the market. EPCOR's Southern Bruce gas system has a high pressure mainline located approximately 9 kilometers north, which is suitable location for the injection of any future RNG produced. It is our understanding the EPCOR's proposed design will be capable of accepting any clean gas produced in the future.

Sincerely,



Carl Frook, Owner

Marl Creek Renewables Inc.

Les Young Farms Ltd.
1379 Concession 8
Cargill, Ontario
N0G 1J0



May 21, 2020

EPCOR Natural Gas LP
Suite 710 – 55 University Avenue
Toronto ON
M5J 2H7

Attention: Susannah Robinson – Vice President Ontario Region

Dear Ms. Robinson,

SUBJECT: LES YOUNG FARMS LTD. SUPPORT OF NATURAL GAS EXPANSION TO BROCKTON AND LES YOUNG FARMS LTD.

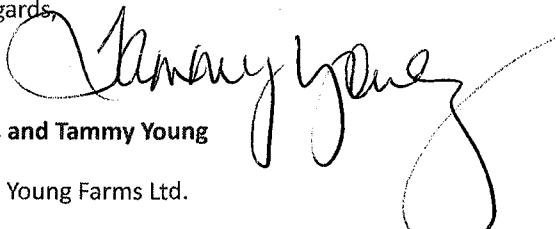
Les Young Farms Ltd. is pleased to provide this letter of support to EPCOR on their plan to expand the Southern Bruce natural gas system into the Municipality of Brockton to support additional customers not covered by the original Southern Bruce project. We have observed as EPCOR has worked to get natural gas into our area and are excited at the prospect of getting access to natural gas for our Grain Elevator.

Les Young Farms Ltd. is located [REDACTED] Cargill, Ontario. We are a Family Owned and Operated Grain Elevator. For the past 25 years, we have had the pleasure of servicing our local agricultural community in Bruce and Grey Counties. The customers we serve, are farmers. They bring grain to us during harvest, to dry and keep in condition. Many local farmers do not have their own means of doing this. They rely on commercial sites, like ours, to provide this service. This is something we wish to continue for many years. We want to have the opportunity to pass our business on to the next generation, but will need to remain viable in a competitive industry.

Grain drying is an energy-intensive business. We currently utilize propane to fuel our two grain dryers. We have not had access to natural gas for our operations. As propane is more expensive than natural gas, we are at a competitive disadvantage compared to grain dryers in other areas of Ontario that already have access to natural gas. We need access to natural gas, in order to improve efficiencies, lower costs to customers, to stay competitive in our local area, and to have a guaranteed supply when we need it. The lack of access in our immediate area directly impacts our ability for future growth.

When natural gas becomes available, we would be very interested in converting our dryer operations to natural gas helping us to reduce our operational costs. This would allow us to become more competitive and economically sustainable in the marketplace. The agricultural community in this area would reap real benefits from the development of the proposed expansion to the Southern Bruce system.

Regards,


Les and Tammy Young

Les Young Farms Ltd.

Lang Grain Farms Limited
472 Greenock-Brant Townline
Chepstow, Ontario
N0G1K0



May 27, 2020

EPCOR Natural Gas LP
Suite 710 – 55 University Avenue
Toronto ON
M5J 2H7

Attention: Susannah Robinson – Vice President Ontario Region

Dear Ms. Robinson,

SUBJECT: SUPPORT OF NATURAL GAS EXPANSION TO BROCKTON AND LANG GRAIN FARMS

Lang Grain Farms is pleased to provide this letter of support to EPCOR for their plan to expand the Southern Bruce natural gas system into the Township of Brockton to support additional customers not covered by the original Southern Bruce project. We have observed as EPCOR has worked to get natural gas into our area and are excited at the prospect of getting access to natural gas for our farm.

Lang Grain Farms Limited is located in Brockton near the community of Chepstow. We operate a grain elevator and agriculture supply outlet. Annually Lang Farm will typically dry between 60000 to 65000 tonnes of grain per year and 25000 tonnes that grain being of corn.

Grain drying is an energy intensive business and we currently utilize propane to fuel our grain dryers as we have not had access to natural gas for our operations. As propane is more expensive than natural gas, we are at a competitive disadvantage compared to grain dryers in other areas of Ontario that already have access to natural gas. The logistics of keeping supply of propane available to the grain dryers in season can be difficult due to the distance from a source and the high demand for only certain times of year. Natural gas would solve this issue. When natural gas becomes available, we would be very interested in converting our dryer operations to natural gas which would help us to reduce our operations costs. This would allow us to become more competitive and economically sustainable in the marketplace. The agricultural community in this area would benefit from the development of the proposed expansion to the Southern Bruce system.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joe Lang", with a long horizontal stroke extending to the right.

Joe Lang

Lang Grain Farms Limited

new-life mills

A division of Parrish & Heimbecker, Limited

252 14th Street - PO Box 219 Hanover, ON N4N 3C5 ph: 519-364-3263 or 1-800-663-4305 fax: 519-364-5732

July 29, 2020

EPCOR Natural Gas LP
Suite 710 – 55 University Avenue
Toronto ON
M5J 2H7

Attention: Susannah Robinson – Vice President Ontario Region

Dear Ms. Robinson,

SUBJECT: NEW-LIFE MILLS, SUPPORT OF NATURAL GAS EXPANSION UNDER THE MENDM PHASE 2 GRANT

On behalf of *New-Life Mills*, I am pleased to provide this letter of support to EPCOR on their plan to expand the current natural gas system in Southern Bruce to provide access to natural gas to additional customers not covered by the original Southern Bruce project. We have observed as EPCOR has worked to get natural gas into the Southern Bruce area and are excited at the prospect of getting access to natural gas.

Our Webb Farm of New-Life Mills is located in the *Municipality of Brocton*, [REDACTED]. The Webb Farm of New-Life Mills markets over 1 Million kilograms of Ontario chicken yearly, raised without antibiotics, for a processor located in South-Western Ontario.

Energy is one of the largest inputs on farms, and a significant cost to rural residents and local business owners. Expanding affordable, accessible natural gas to farms in rural Ontario will dramatically boost business opportunities by significantly lowering our energy costs. The agricultural community in this area would benefit from the development of the proposed expansion to the Southern Bruce system and we are in support of this project.

Sincerely,

NEW-LIFE MILLS



Alan Heimbecker
President

Berry Bush Farms
681 14 CONC E
R.R. #1
CHESLEY ON N0G 1L0

May 26, 2020

EPCOR Natural Gas LP
Suite 710 – 55 University Avenue
TORONTO ON M5J 2H7

Attention: Susannah Robinson – Vice President Ontario Region

Dear Ms. Robinson,

**SUBJECT: BERRY BUSH FARMS SUPPORT OF NATURAL GAS EXPANSION UNDER THE MENDM
PHASE 2 GRANT**

My name is Ron DeVisser, President of Berry Bush Farms. We are a turkey and cash crop farming operation operated by my wife, my son and myself, with part-time help from 2 other sons and a daughter. On behalf of Berry Bush Farms, I am writing this letter in support of EPCOR's plan to expand the current natural gas system in Southern Bruce. We have been following EPCOR's work to get natural gas into our area and are hopeful that we too will get access to natural gas, especially considering our close proximity to the new pipeline. We support EPCOR's plan to provide access to natural gas to additional customers not covered by the original Southern Bruce project.

Berry Bush Farms is located in the north part of the former Brant Township, Municipality of Brockton, [REDACTED]. We operate a turkey growing facility comprised of 48,000 square feet of barn space [REDACTED]. We are considering expanding this facility by building additional barn space of 32,000 square feet in the next 2 years. Availability of natural gas is one of the factors of this decision and is an important part of being competitive with other turkey producers, the majority of whom have access to natural gas.

In addition, we operate a crop drying facility [REDACTED] with a dryer bin, which dries and handles crops from 1,000 acres. Much of the rest of southern Ontario has access to natural gas, which puts crop farmers in our area at a competitive disadvantage because commodity crop prices don't factor in differing energy costs. We need to upgrade our grain drying facility as we have grown beyond our current system. A new system would triple our capacity as well as using natural gas to cogenerate heat and electricity for the facility. Both of these facilities use a substantial amount of energy, currently propane (130,000 litres in 2019), and would be well served by being converted to natural gas.

Over the past 25 years we have talked to Union Gas/Enbridge people on a couple of occasions. Union Gas had an expansion/sales office just north of Mildmay in the old township office over 20 years ago where I talked to 2 representatives. They told me they were evaluating South Bruce for the potential of expansion for that area but there were no plans for my area. Several years ago we contacted Enbridge again and asked about getting gas to our farm in the north end of Brockton and they assured me we would never get natural gas.

We were very pleased when the townships to the north of us started working to build a pipeline from Dornoch to Bruce Energy. However, it seems our township (formerly Brant) was rolled into the trading area of Enbridge with the amalgamation of Walkerton and Brant. Now we find ourselves caught being located 1 km from a gas line we cannot access because the company that installed that pipeline does not have the trading rights in our area. Meanwhile Union Gas/Enbridge has failed for many years to provide any type of support that would enable us to get natural gas to our farming operation.

Energy is one of the largest input costs on our farm. It is a significant cost to farms, business owners and rural residents. Although there has been emphasis on natural gas expansion in Ontario, and despite lobbying local gas providers and government, there have been no plans or commitments made towards any development of natural gas infrastructure in the Municipality of Brockton. Expanding affordable, accessible natural gas to farms in this area will increase our business opportunities and competitiveness by significantly lowering our energy costs. The agricultural community in this area would benefit from the development of the proposed expansion to the Southern Bruce system and we are fully in support of this project.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Ron DeVisser', followed by a period.

Ron DeVisser, President
Berry Bush Farms.

Cc Chris Peabody, Mayor, Municipality of Brockton
Lisa Thompson, MPP, Huron-Bruce

SCHEDULE A

EB-2016-0137 | EB-2016-0138 | EB-2016-0139

DATED: April 12, 2018

**Certificate of Public Convenience and Necessity for the
Municipality of Arran-Elderslie**

EB-2016-0137

Certificate of Public Convenience and Necessity

The Ontario Energy Board grants

EPCOR Southern Bruce Gas 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

Municipality of Arran-Elderslie

as it is constituted on the date of this Decision and Order, excluding the geographical areas of the former Township of Arran and the former Village of Tara.

DATED at Toronto, April 12, 2018

ONTARIO ENERGY BOARD

Original Signed By

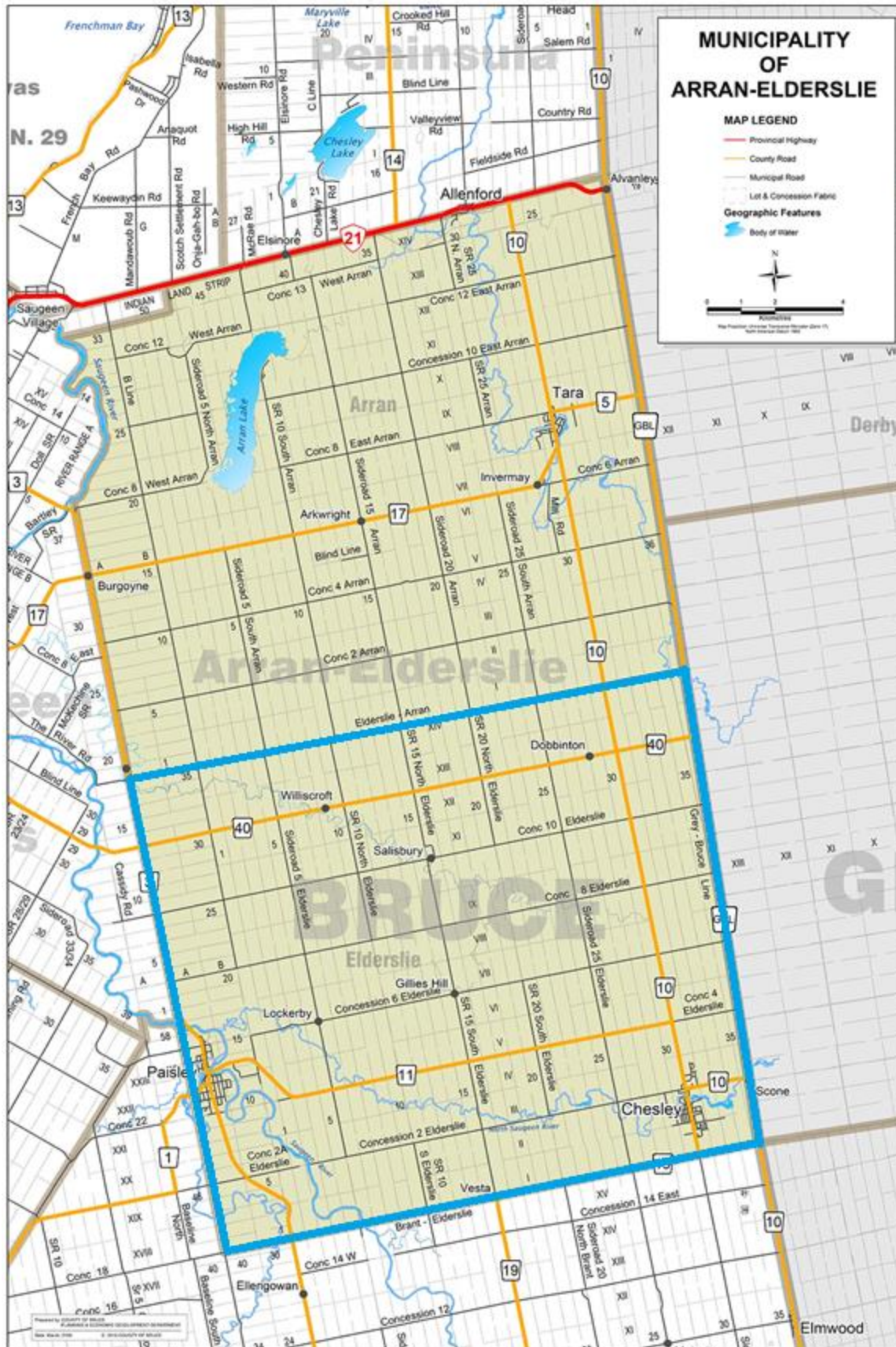
Kirsten Walli
Board Secretary

SCHEDULE B

EB-2016-0137 | EB-2016-0138 | EB-2016-0139

DATED: April 12, 2018

Map of the Municipality of Arran-Elderslie



SCHEDULE C

EB-2016-0137 | EB-2016-0138 | EB-2016-0139

DATED: April 12, 2018

**Certificate of Public Convenience and Necessity for the
Municipality of Kincardine**

EB-2016-0138

Certificate of Public Convenience and Necessity

The Ontario Energy Board grants

EPCOR Southern Bruce Gas 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

Municipality of Kincardine

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

DATED at Toronto, April 12, 2018

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

SCHEDULE D

EB-2016-0137 | EB-2016-0138 | EB-2016-0139

DATED: April 12, 2018

Map of the Municipality of Kincardine

Table 4.2 – Total Forecast of Capital Cost

Total Capital Costs at the End of the Rate Stability Period	\$000s	\$ 28,385
Inflation Rate Based on GDP IPI FDD	%	2.08%
OEB Prescribed Interest Rate for CWIP	%	2.48%

Table 4.3 – Total Annual Forecast Revenue Requirement

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue Requirement (\$000s)	\$ 283	\$ 572	\$ 721	\$ 797	\$ 864	\$ 902	\$ 921	\$ 940	\$ 955	\$ 971

Description	Year 10
Closing Rate Base (\$000s)	\$ 6,421

Table 5.1 - Total Amount of Section 36.2 Funding Required

Total Section 36.2 Funding Needed	\$000s	\$ 20,340
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Table 5.2 - Section 36.2 Funding Per Customer

Section 36.2 Funding per Customer in Year 10	\$ / cx	\$ 40,599
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Table 5.3 - Section 36.2 Funding Per Volume (m3)

Section 36.2 Funding per Volume in Year 10	\$ / m3	\$ 7.09
---	---------	---------

Table 6.1 - Distribution Charge

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Distribution Revenue (\$000s)	\$ 60	\$ 221	\$ 334	\$ 398	\$ 454	\$ 485	\$ 495	\$ 506	\$ 514	\$ 522

Table 7.1 - Profitability Index with Section 36.2 Funding

PI with Section 36.2 Funding	1.00
-------------------------------------	------

Table 7.2 - Profitability Index without Section 36.2 Funding

PI without Section 36.2 Funding	0.40
--	------



345 Carlingview Drive
 Toronto, Ontario M9W 6N9
 Tel.: 416.734.3300
 Fax: 416.231.1626
 Toll Free: 1.877.682.8772
www.tssa.org

July 27, 2020

Mr. Thomas Stachowski
 Epcor Natural Gas Limited Partnership (ENGLP)
 39 Beech St E, Aylmer
 ON, N5H 3J6

FS Variance
Service Request No.: 2886740

Re: Variance Request from Claus 4.11.3 of CSA Z662-15, for 39 Beech St, Aylmer

Dear Mr. Stachowski,

This is in response to your variance application involving the following request:

- Use of fiber optic lines provided by CIAO Internet to be used as dual function of providing internet to the customers and Fiber Optic Sensing (FOS) in vicinity of the natural gas lines in which the clearance between the fiber optic lines and natural gas lines do not meet table 4.9 as required by section 4.11.3.

Your variance requests are to:

1. Clause 4.11.3 of CSA Z662-15
 Clearance between the gas lines and other utility lines should be at least 300mm according to table 4.9.

In support of your requests, the following was proposed:

1. Clause 4.11.3 of CSA Z662-15
 There is an agreement between Epcor as natural gas utility company and CIAO Internet as internet provider that the fiber optic lines to be used for dual function of providing internet and also Fiber Optic Sensing device for the natural gas pipeline. Using fiber optic lines as sensing device gives advantage to Epcor to sense the ground disturbance in real time and react to the situation if required. Following points are also mentioned by CIAO Internet to support the request for this variance.
 - a) Adjacent telecommunication cable does not affect construction, maintenance and repair activities. The cable is inert and can assist by potentially identifying areas of instability. Repairs to the telecommunications cable can be easily performed following any required maintenance or line repair necessary.
 - b) Installation of the telecommunication cable will synergize construction activity while utilizing similar corridors, including trenchless corridors.
 - c) Pipe movement during operation does not affect the close proximity of the fiber optic lines with gas lines.
 - d) Co-installation can minimize the number of utility intersections and improves likelihood of as built information for both telecommunications and natural gas utilities. In many cases telecommunication cable installation information is not available in communities leading to many fibre optic strikes when other utilities are being installed. Should repairs or service be required to natural gas infrastructure co-located with telecommunication cable, locating of lines is conducted through identification of tracer wire adjacent with both utilities. During excavation, following a standard procedure hand excavation would uncover the telecommunication cable followed by natural gas line. Repairs would be made to the natural gas pipeline followed by any repairs necessary to the telecommunication cable necessary.
 - e) The telecommunications cable is inert and does not interfere with cathodic protection and other grounding systems associated with the pipeline or distribution system.

- f) The telecommunications cable is not conductive or a source of heat affecting operating temperatures of the pipeline or distribution system.

This variance is allowed under the authority of subsection 36 (3) (c) of the Technical Standards and Safety Act, 2000 and subject to such conditions as may be specified herein, being that:

- The installation shall comply with the drawings and information submitted to TSSA, as amended and accepted during the review;
- The system shall be inspected by TSSA prior to operation of the system. Please contact Mr. Kourosh Manouchehri at kmanouchehri@tssa.org or 416-734-3539 to arrange for the inspection.
- Non-conformity with the conditions specified shall thereby cause the allowed variance to lapse;
- The applicant accepts full responsibility for all damages resulting from the use of the thing to which the regulation under the Technical Standards and Safety Act applies or to the health or safety of any person in consequence of allowance of the variance or non-conformity with the conditions specified, to the complete exclusion of Technical Standards and Safety Authority;
- In the event of third-party claims against the Technical Standards and Safety Authority arising from allowance of the variance or non-conformity with the conditions specified, the applicant accepts - on demand - to indemnify the Technical Standards and Safety Authority and to hold it harmless from such claims and attendant costs;
- The variance process is subject to public access under the TSSA Access and Privacy Code (available upon request). The fact that a variance has been granted, and information about any public conditions, such as a requirement to post a sign, could be released on request. Proprietary and/or competitive information would not be subject to release;
- A copy of the variance letter shall be kept by both Epcor and CIAO Internet for the file of pipeline;
- The applicant shall pay the fee associated with the review of the variance;

Please note that this variance only relates to the Technical Standards and Safety Act and Regulations made thereunder and does not exempt you from compliance with other applicable jurisdictional requirements. The installation may be subject to an inspection at any time to ensure compliance with the terms of the variance.

If you have any further questions, please call Mr. Kourosh Manouchehri at 416-734-3539.

Sincerely,



John R. Marshall
Statutory Director - Fuels Safety