

EB-2024-0111
Enbridge Gas Inc. Phase 2 Rebasing
POLLUTION PROBE - HEARING COMPENDIUM

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Bridge to a Cleaner Energy Future



Al Monaco
President &
Chief Executive Officer

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EVP, Corporate Development &
Chief Financial Officer

Q3 2022 Financial Results & Business Update

Legal Notice

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In particular, this presentation contains FLI pertaining to, but not limited to, information with respect to the following: Enbridge's strategic plan, priorities and outlook; 2022 financial guidance, including projected DCF per share and adjusted EBITDA, and expected growth thereof; expected dividends, dividend growth and dividend policy; expected supply of, demand for, exports of and prices of crude oil, natural gas, natural gas liquids (NGL), liquefied natural gas (LNG) and renewable energy; energy transition and low carbon energy, and our approach thereto; environmental, social and governance (ESG) engagement, commitments and disclosure, including the Regional Oilsands Indigenous partnership; industry and market conditions, including market risks, tailwinds and headwinds such as recession and inflation and interest rates; anticipated utilization of our assets; expected adjusted EBITDA; expected DCF and DCF per share; expected future cash flows; expected shareholder returns; expected performance of the Company's businesses, including customer growth and organic growth opportunities; financial strength, capacity and flexibility; financing costs(1); expected costs related to announced projects, projects under construction and system expansion, optimization and modernization; expected in-service dates for announced projects and projects under construction; expected capital expenditures; capital allocation framework and priorities; share repurchases under normal course issuer bid; expected future growth, including secured growth program, development opportunities and low carbon and new energies opportunities and strategy, including the T-North and T-South pipeline expansions, and the Gray Oak and Tri Global Energy acquisition; expected future actions of regulators and courts and the timing and anticipated impact thereof; toll and rate case proceedings and frameworks, including with respect to the Mainline, and anticipated timing and impact therefrom; and CEO transition. Although we believe that the FLI is reasonable based on the information available today and processes used to prepare it, such statements are not guarantees of future performance and you are cautioned against placing undue reliance on FLI. By its nature, FLI involves a variety of assumptions, which are based upon factors that may be difficult to predict and that may involve known and unknown risks and uncertainties and other factors which may cause actual results, levels of activity and achievements to differ materially from those expressed or implied by the FLI, including, but not limited to, the following: energy transition, including the drivers and pace thereof; global economic growth and trade; the expected supply of, demand for, exports of and prices of crude oil, natural gas, NGL, LNG and renewable energy; anticipated utilization of our assets; anticipated cost savings; exchange rates; inflation; interest rates; the COVID-19 pandemic and the duration and impact thereof; availability and price of labour and construction materials; the stability of our supply chain; operational reliability and performance; customer, regulatory and stakeholder support and approvals; anticipated construction and in-service dates; weather; announced and potential acquisition, disposition and other corporate transactions and projects, and the timing and impact thereof; expectations about our partners' ability to complete and finance proposed projects; governmental legislation; litigation; credit ratings; hedging program; expected EBITDA; expected future cash flows; expected future DCF and DCF per share; estimated future dividends; financial strength and flexibility; debt and equity market conditions; general economic and competitive conditions; the ability of management to execute key priorities; and the effectiveness of various actions resulting from the Company's strategic priorities. 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1. As at September 30, 2022, approximately 10% of Enbridge's debt is exposed to floating interest rates as well as 2023 debt maturities that require re-financing which, given rising interest rates, has had and could continue to have an impact on our financing costs.

Non-GAAP and Other Financial Measures

This presentation makes reference to non-GAAP and other financial measures, including EBITDA, adjusted EBITDA, adjusted earnings, adjusted earnings per share, distributable cash flow (DCF) and DCF per share. Management believes the presentation of these metrics gives useful information to investors and shareholders as they provide increased transparency and insight into the performance of the Company. EBITDA represents earnings before interest, tax, depreciation and amortization. Adjusted EBITDA represents EBITDA adjusted for unusual, infrequent or other non-operating factors on both a consolidated and segmented basis. Management uses EBITDA and adjusted EBITDA to set targets and to assess the performance of the Company and its business units. Adjusted earnings represent earnings attributable to common shareholders adjusted for unusual, infrequent or other non-operating factors included in adjusted EBITDA, as well as adjustments for unusual, infrequent or other non-operating factors in respect of depreciation and amortization expense, interest expense, income taxes and noncontrolling interests on a consolidated basis. Management uses adjusted earnings as another measure of the Company's ability to generate earnings. DCF is defined as cash flow provided by operating activities before the impact of changes in operating assets and liabilities (including changes in environmental liabilities) less distributions to non-controlling interests, preference share dividends and maintenance capital expenditures, and further adjusted for unusual, infrequent or other non-operating factors. Management also uses DCF to assess the performance of the Company and to set its dividend payout target. Reconciliations of forward-looking non-GAAP and other financial measures to comparable GAAP measures are not available due to the challenges and impracticability of estimating certain items, particularly certain contingent liabilities and non-cash unrealized derivative fair value losses and gains which are subject to market variability. Because of those challenges, reconciliations of forward-looking non-GAAP and other financial measures are not available without unreasonable effort. Our non-GAAP metrics described above are not measures that have standardized meaning prescribed by generally accepted accounting principles in the United States of America (U.S. GAAP) and are not U.S. GAAP measures. Therefore, these measures may not be comparable with similar measures presented by other issuers. A reconciliation of historical non-GAAP and other financial measures to the most directly comparable GAAP measures is available on the Company's website. Additional information on non-GAAP and other financial measures may be found in the Company's earnings news releases or in additional information on the Company's website, www.sedar.com or www.sec.gov. Unless otherwise specified, all dollar amounts in this presentation are expressed in Canadian dollars, all references to "dollars" or "\$" are to Canadian dollars and all references to "US\$" are to US dollars.

Agenda

- Q3 Highlights
- Business Update
- Financial Performance & Outlook



Q3 Highlights

✔ Operations

- Focused on operational safety and integrity programs
- High capacity utilization across the business

✔ Financial

- Strong Q3 results; On track to achieve 2022 EBITDA & DCF/share guidance
- Bolstering balance sheet flexibility

✔ Execution

- On track for \$3.8B to enter service in 2022
- Placed Gulfstream Phase VI into service
- St. Nazaire (offshore wind in France) expected in service in November

New
New

✔ Growth

- Secured \$3.8B in new organic investments
- Acquired Tri Global Energy extending N.A. onshore renewable development
- Acquired additional 10% interest in Cactus II Permian pipeline

New
New
New

✔ Capital Recycling

- \$1.12B sale in select Regional Oil Sands assets
- Increased interest in Gray Oak pipeline; US\$0.4B cash received

New
New

Our Dual-Pronged Strategy

		Core Growth			Low-Carbon Growth			
		Optimize / Expand	Exports	Modernize Assets	Solar/Wind	RNG ¹	H ₂	CCS ²
	Liquids Pipelines	✓	✓	✓	✓ ³		✓	✓
	Gas Transmission	✓	✓	✓	✓ ³	✓	✓	✓
	Gas Distribution	✓		✓		✓	✓	✓
	Renewable Power	✓		✓	✓		✓	

Our strategies focus on conventional and low-carbon growth opportunities

(1) RNG: Renewable Natural Gas (2) CCS: Carbon Capture & Sequestration (3) Solar self-power program

Business Update

Gas Transmission



20% of natural gas consumed in the U.S.

- Advancing ~\$10B capital program
- Gulfstream Phase VI in service **New**
- B.C. Pipeline rate settlement in principle **New**
- TETCO settlement awaiting FERC approval

Gas Distribution & Storage



~2 Tcf of natural gas delivered; Serving 75% of Ontarians

- \$3.5B utility growth capital program in execution
- Filed application to establish 2024-2028 rates **New**
- Sanctioned 2 new RNG projects **New**

Renewables



2.2 GW¹ renewable energy serving ~900,000 homes

- \$2.9B of growth capital in execution
- \$1.1B projects to enter service in 2022
- 10 solar self-power projects in construction

Liquids Pipelines



~30% of N. America's oil transported and exported

- Mainline volumes on track for average of 2.95 mmbpd²
- Advancing Wabamun Carbon Hub
 - Signed Carbon Evaluation Agreement with Gov't of AB **New**
- Progressing EIEC³ Blue Ammonia & Sequestration Hub

Successfully executing on our strategies

(1) Net capacity of assets in operation and under construction; (2) Average Ex-Gretna throughput for 2022; (3) Enbridge Ingleside Energy Center

Enbridge could spend US\$1-billion expanding company turning food waste into energy

JEFFREY JONES >

PUBLISHED March 1, 2023

Source: https://www.theglobeandmail.com/business/article-enbridge-could-spend-us1-billion-expanding-company-turning-food-waste/?utm_medium=Referrer:+Social+Network+//+Media&utm_campaign=Shared+Web+Article+Links

Enbridge Inc. ENB-T is paying US\$80-million for a 10-per-cent stake in a U.S. food waste recovery and renewable natural gas company, and said it could expand the business with up to US\$1-billion worth of new anaerobic digester projects.

Calgary-based Enbridge said it bought into Divert Inc., a 16-year-old company that focuses on reducing waste and turning food scraps into low-carbon fuel that can be injected into any natural gas pipeline network.

The deal represents an expansion of Enbridge's strategy that has so far focused on providing biogas upgrading and renewable natural gas injection services for producers in Ontario. Its gas distribution arm set a target to increase RNG supply in the province tenfold to 5 petajoules by 2025. The company, best known for its pipeline and gas distribution businesses, calls RNG a "key pillar of its energy transition strategy."

Divert, based in West Concord, Mass., said **Enbridge's equity investment is in addition to US\$20-million from a fundraising round** led by its current investor, Ara Partners.

The company said it plans to expand its operations in the United States to be within 160 kilometres of four-fifths of the U.S. population over the next eight years. The cash injections will accelerate its potential to offset almost 400,000 tonnes of carbon dioxide annually. The partners will also consider new wasted-food to renewable gas projects in Canada, it said.

"Divert has emerged as a leader in creatively managing wasted food and our partnership aligns with Enbridge's priorities in pioneering RNG as an effective

solution to achieve net-zero greenhouse gas emissions,” Caitlin Tessin, Enbridge’s vice-president, strategy and market innovation, said in a statement.

It recently signed an RNG offtake agreement with oil major BP PLC worth US\$175-million, which is one of the largest-ever such deals in the United States.

Enbridge earmarks \$3.3-billion for U.S. Gulf Coast storage plant, other projects

Utilities across the continent are increasingly buying RNG from independent producers to meet regulations and bolster their sustainability programs. For customers, once the biogas is upgraded to RNG it is indistinguishable from the fossil fuel gas burned in furnaces and stoves. That means there is no need for new and specialized infrastructure. It can also be used as a transport fuel.

It is one way to deal with the problem of food waste, more than 100 million tonnes of which is generated each year in the United States alone, with half of that going to landfills and incinerators, Divert said.



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

October 25, 2022

OEB Staff Report to the Ontario Energy Board

Review of 2022 Annual Update to EPCOR Natural Gas Limited Partnership's Natural Gas Supply Plan

EB-2022-0141

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APPENDIX B: EPCOR SOUTH BRUCE PERFORMANCE SCORECARD

2.2.5 Public Policy Objectives

Renewable Natural Gas

EPCOR Aylmer stated its support of the development of an RNG market that would facilitate the inclusion of RNG in its gas supply portfolio. EPCOR Aylmer referred to the importance of Greenhouse Gas (GHG) abatement across the province, as well as the role that EPCOR Aylmer plays in supporting the achievement of GHG emission reduction targets. EPCOR Aylmer does not currently hold any RNG in its GSP. In fall 2022, EPCOR Aylmer expects to start receiving RNG into its distribution system. However, EPCOR Aylmer is not the ultimate buyer of the RNG. **The RNG producer has a contract with a buyer outside of Ontario for the RNG volume, as well as the environmental attributes.** As a result, EPCOR Aylmer will purchase the RNG as another source of local supply, and will not be taking ownership of the environmental attributes generated from the production of the RNG.

This arrangement allows for the development of RNG production within Ontario, as well as providing EPCOR Aylmer a learning opportunity on how to transact and procure RNG without cost impacts.

Demand Side Management (DSM)

In its filing, EPCOR stated that it would be implementing a DSM pilot in 2023 within its Aylmer or South Bruce territories.¹⁴ In response to OEB staff's clarification questions, EPCOR confirmed that its plan changed during the course of the 2022 GSP Update and it no longer planned to implement a DSM pilot in 2023.¹⁵ While a pilot was an early consideration for DSM portfolio introduction, further investigation by EPCOR concluded that a more reasonable approach was a staggered rollout, potentially covering a two-year DSM plan with options for residential and commercial customers.

EPCOR stated that it is planning to include a DSM proposal as part of EPCOR Aylmer's 2025 cost of service proceeding.

Community Expansion

EPCOR Aylmer stated that it has been actively working to bring natural gas to unserved communities. A number of customers have requested service and EPCOR Aylmer has

¹⁴ EPCOR 2022 GSP Update, Aylmer, p. 23 of 91.

¹⁵ EB-2022-0141, EPCOR Response to OEB Staff Clarifying Questions, September 14, 2022, p. 1.

Is 'renewable' natural gas a climate solution — or masterful greenwashing?

By [Marc Fawcett-Atkinson](#) | News | April 6th 2023



Illustration by Ata Ojani

Each time Tim Crossin turns on his gas fireplace to heat the modest home he shares with his partner, the avowed environmentalist "assuages" his climate guilt with a reminder

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Unlike conventional natural gas, a fossil fuel extracted from underground deposits, this "renewable" gas is made using biomethane captured from landfills, food waste and manure pits. It is considered renewable because it is created by capturing methane – a potent greenhouse gas – emitted naturally when organic matter breaks down and transforming it into a fuel chemically identical to conventional natural gas.

"It's a way to support the biomethane industry," he explained. "I don't think we should be burning fossil fuels anymore. This gives me a moral argument to squash my guilt, basically."

But while the premium price offers Crossin climate solace, in practice, most of the gas that FortisBC Energy Inc., the provincial gas utility, supplies to his Comox, B.C., home **still comes from fossil fuel deposits, not a landfill or biodigester. Crossin's gas is branded as "renewable" because he pays a premium to FortisBC, which then purchases the "renewable" designation from biomethane generated, sold and used as far afield as Ontario and the U.S.**

This designation lets the company supplement the minimal amounts of B.C.-made biomethane running through its pipes with conventional natural gas that – on paper – is considered biomethane. It is a similar designation as carbon offset credits sold by airlines, which let customers offset their portion of a flight's greenhouse gas emissions by investing in emissions reduction projects elsewhere.

"They're buying not the (renewable natural gas) molecules themselves, but the environmental attributes of these molecules," explained Eoin Finn, a researcher with the environmental group My Sea to Sky. "It's fossil gas with a piece of paper attached saying: 'Hey, I'm really renewable.'"

In a statement to *Canada's National Observer*, FortisBC said it doesn't matter if the biomethane is not produced and used in B.C.

"Greenhouse gas emissions are a global issue and all climate action has a global impact. Wherever we source RNG from, it takes the place of conventional natural gas in the North American gas system, decarbonizing the gas system and decreasing net greenhouse gas emissions," FortisBC wrote.

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When *Canada's National Observer* asked FortisBC whether an overall increase in natural gas use could negate the environmental benefits of using more biomethane — because the company could still use the same amount of conventional gas and top it off with biomethane — FortisBC said, "(We) purchase less conventional natural gas when we purchase RNG."

Finn sees this "paper energy" as nothing more than a ploy by FortisBC to continue supplying B.C. buildings with natural gas.

"It's total greenwashing," he said. Even the company's current renewable natural gas program, which only includes biomethane, relies heavily on gas that "never arrives (in B.C.) at all." The company's primary goal with its biomethane and renewable gas programs is not tackling climate change, he said, but "trying its best to preserve its business model" in the face of electrification.

Electricity generates fewer carbon emissions and, unlike gas, can be used both to heat and cool homes. As climate change threatens more extreme, hot weather, those dual functions are poised to make them more appealing than gas, he pointed out.

Recent years have seen municipalities across B.C. try to stop developers from putting natural gas pipes in new buildings in an effort to boost electricity use for heating. Most electricity in B.C. is generated by hydropower and generates far fewer greenhouse gas emissions than gas.

Vancouver made headlines last year when it became one of the first Canadian jurisdictions to ban the use of natural gas in new residential buildings. Quebec implemented a similar rule late in 2021 to phase out fossil fuel-based heating systems.

Outside of Vancouver, which has its own charter, provincial laws make it impossible for other B.C. municipal governments to outright ban natural gas. To get around this restriction, municipal politicians have used bylaws to ban the use of conventional natural gas in new buildings. But because renewable natural gas does not come from fossil fuel deposits, it isn't covered by the rules, Finn explained.

Last January, FortisBC fought back against these municipal rules. The company submitted a [proposal](#) to the B.C. Utilities Commission for permission to sell 100 per cent renewable natural gas to every new building in the province. FortisBC also requested permission to expand the types of gas it can call "renewable" to include other gases, like so-called "blue" and "turquoise" hydrogen, which are both made from conventional natural gas. Hydrogen can be blended with natural gas to be used in homes. The proposal is still being assessed by the commission.

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The changes are necessary because "federal, provincial and municipal ... policies focused on reducing GHG emissions threaten the long-term viability of the gas delivery system," FortisBC wrote in legal filings to the commission. Mandates like the municipal bylaws banning conventional natural gas in new buildings "may cause customers to (stop)" using natural gas entirely unless the utility company can supply them with so-called "renewable" natural gas.

However, a close look at a key [study](#) led by the B.C. government and FortisBC that backs the company's proposal shows biomethane — the gas captured from landfills and biodigesters — will likely only ever account for a small fraction of the province's needs.

B.C. generates far less biomethane than is needed to meet demand. Currently, "the majority" of renewable natural gas sold in B.C. takes the form of credits generated from other companies selling biomethane outside the province, FortisBC told *Canada's National Observer* in a statement.

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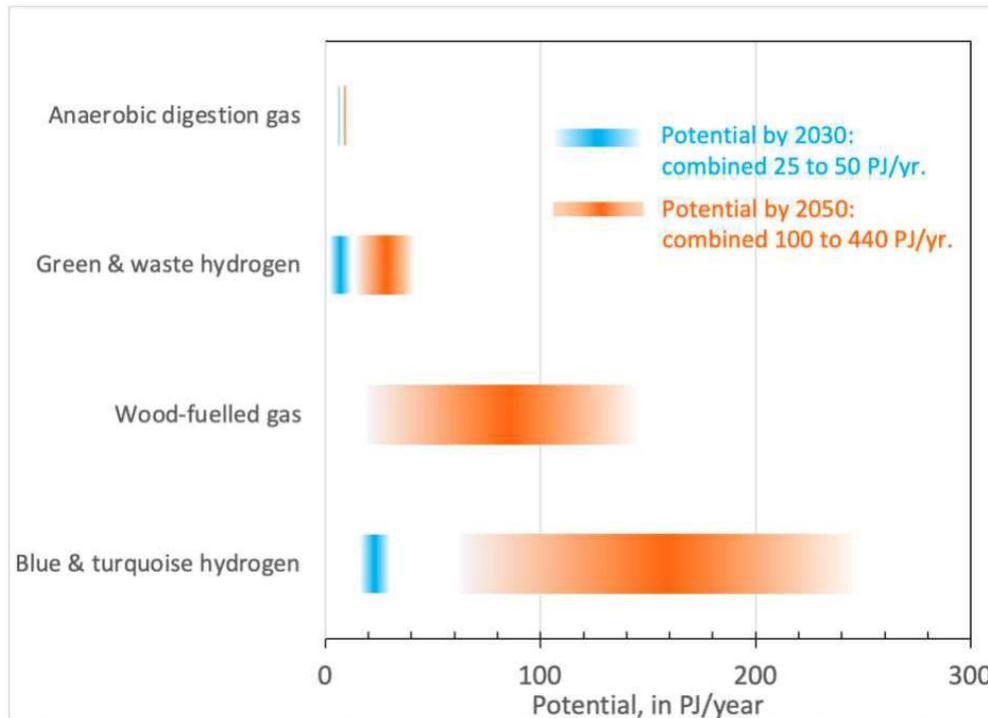


Figure 1 Minimum and Maximum Renewable and Low-Carbon Gas Production Scenarios for B.C. for 2030 and for 2050

Research commissioned by FortisBC and the B.C. government found that biomethane from landfills and digesters could only ever account for a fraction of B.C.'s "renewable" gas supply. Chart by Envint Consulting and Canadian Biomass Energy Research for FortisBC, the B.C. Bioenergy Network and the Province of British Columbia

According to the study, FortisBC will need to expand what counts as "renewable" and "low-carbon" to rely on gas made from wood residue – also called "synthesis gas" – and so-called "blue" and "turquoise" hydrogen to meet the province's future demand for gas. Blue and turquoise hydrogen are made from conventional natural gas but are considered low-carbon gases in the provincial government's climate laws.

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Proponents of blue and turquoise hydrogen say they have a smaller climate impact because producers can capture the greenhouse gas emissions linked to the fossil fuel at the moment of production, keeping them out of the atmosphere using carbon capture, utilization and storage technology that is still being developed. Hydrogen does not emit greenhouse gases when it burns.

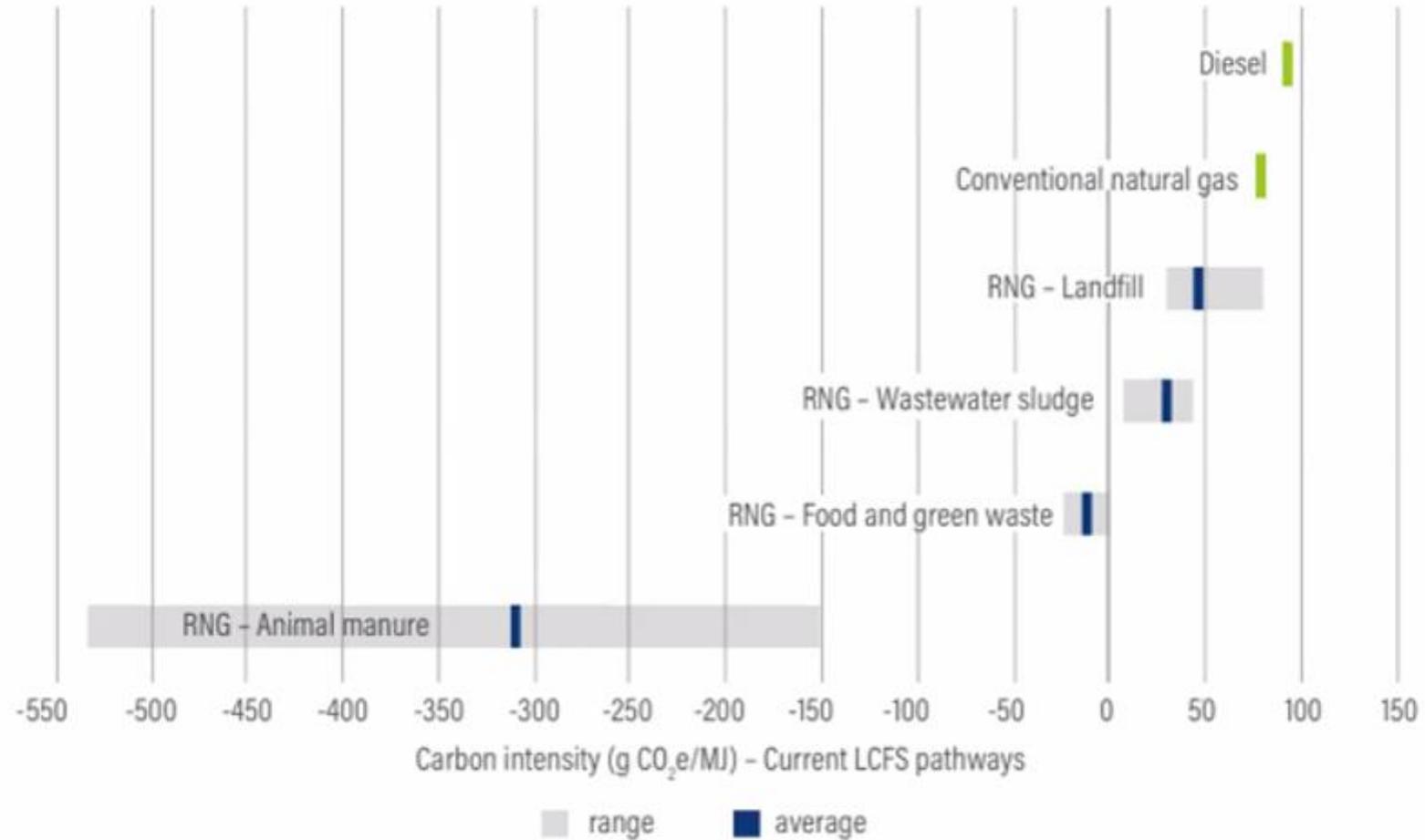
In a statement, FortisBC noted: "Deep decarbonization will require ... co-ordination across gas and electric systems with a focus on affordable resiliency." Studies done in B.C. and by the International Energy Agency "acknowledge that renewable and low-carbon gases, like hydrogen, are important to a lower-carbon energy future and could be one of the most expedient ways to effective rapid decarbonization," the company said.

Critics say the technologies still rely on fossil fuel extraction and their efficacy is uncertain. It is also unclear just how much the proposal will lead to tangible changes in the source of gas molecules flowing through B.C. pipes, said Finn, the environmental researcher.

Back in Comox, Crossin, the environmentalist, echoed Finn's concern. While using FortisBC's renewable natural gas helped assuage his guilt over burning fossil fuels, it was likely a temporary measure. It won't be long, he said, before he ditches the gas fireplace and "gets a heat pump."

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RNG: carbon intensity



Note: Graph from Enbridge OSEA presentation November 29, 2022. Based on the source document provided by Enbridge in EB-2022-0200 Exhibit J4.1

ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe (“PP”)

INTERROGATORY

Reference:

“The Project is expected to reduce greenhouse gas emissions by 110,000 tonnes per year” [F/1/1 Attachment 1 page viii]

Question:

- a) Please provide the calculations that result in an estimated reduction from the project of greenhouse gas emissions by 110,000 tonnes per year. If the volume of RNG in the calculation differ from the RNG volumes outlined in the M13 contract, please explain.
- b) Will the emission credits related the RNG from this facility accrue to Ontario natural gas ratepayers? If not, who will own the emission credits?
- c) Does Enbridge intend to purchase RNG from this project to meet its Voluntary RNG program supply? If yes, what portion of the program supply is expected to come from this project?

Response

- a) The M13 specifies a maximum RNG quantity at receipt point #1 of 184,104 m³ per day. The estimate of greenhouse gas (“GHG”) emission reductions in tonnes carbon dioxide equivalent (tCO²e) is calculated as follows:

Average RNG production:

$$\begin{aligned} &= \text{Average daily RNG production (m}^3\text{)} \times 345 \text{ days of production per year} \\ &= 128,056 \text{ m}^3\text{/day} \times 345 \text{ days/year} \\ &= 44,179,320 \text{ m}^3\text{/year} \end{aligned}$$

To convert this annual RNG production value to GJ/year:

$$\begin{aligned} &= \text{Annual RNG production (m}^3\text{/year)} \times \text{2021 average heating value} \\ &= 44,179,320 \text{ m}^3\text{/year} \times 0.03884^1 \text{ GJ/m}^3 \\ &= 1,715,933 \text{ GJ/year} \end{aligned}$$

Where the RNG is used to displace gasoline in vehicles, with an energy content of 34.66 GJ per cubic meter of gasoline,² the equivalent litres (L) of gasoline is:

$$\begin{aligned} &= \text{Annual production of RNG (GJ/year)} \div \text{energy content of gasoline (GJ/m}^3\text{)} \\ &= 1,715,933 \text{ GJ/year} \div 34.66 \text{ GJ/m}^3 \text{ of gasoline} \\ &= 49,508 \text{ m}^3 \text{ of gasoline} \times 1000 \text{ L/m}^3 \text{ of gasoline} \\ &= 49,507,588 \text{ litres of gasoline} \end{aligned}$$

And where the emission factor is 0.00232 tonnes carbon dioxide equivalent per liter of gasoline,³ the avoided GHG emissions equal:

$$\begin{aligned} &= \text{Annual production value (L)} \times \text{emission factor of gasoline (tCO}_2\text{e/L)} \\ &= 49,507,588 \text{ L} \times 0.00232 \text{ tCO}_2\text{e/L} \\ &= 114,857 \text{ tCO}_2\text{e} \end{aligned}$$

The annual emissions reduction from RNG produced in the Project displacing gasoline use in vehicles is 114,857 tonnes carbon dioxide equivalent per year, or 110,000 tonnes carbon dioxide equivalent per year when rounded to two significant figures.

- b) Please see the response at Exhibit I.STAFF.1, Part b). Although this supply is being produced in Ontario, because Enbridge Gas is not procuring the RNG supply being produced at this facility, the emissions credits will accrue to the party or jurisdiction that ultimately procures the supply from Waste Connections.⁴
- c) Please see the response at Exhibit I.STAFF.1, part b).

¹ <https://www.enbridgegas.com/-/media/Extranet-Pages/About-Enbridge-Gas/learn-about-natural-gas/gas-composition-and-high-heating-value->

[data.ashx?rev=2d56f5ca107e4b0ba1d031935fb584d9&hash=7FEBBAD0E9AEAF372EFA423F023CDFBA](https://apps.cer-rec.gc.ca/Conversion/conversion-tables.aspx?GoCTemplateCulture=en-CA-2-5)

² <https://apps.cer-rec.gc.ca/Conversion/conversion-tables.aspx?GoCTemplateCulture=en-CA-2-5>

³ Table A6 1-14, 2021 National Inventory Report:

https://publications.gc.ca/collections/collection_2021/eccc/En81-4-2019-2-eng.pdf

⁴ The Ridge Landfill site is owned by Ridge Holdings, L.P., a wholly owned subsidiary of Waste Connections.

PROPOSED RIDGE LANDFILL RNG PROJECT

NOTICE OF STUDY COMMENCEMENT AND VIRTUAL INFORMATION SESSION
 CHATHAM-KENT, ONTARIO
 ENBRIDGE GAS INC.

The Study

Enbridge Gas Inc. (Enbridge Gas) has retained Dillon Consulting Limited to begin an environmental study for the proposed Ridge Landfill Renewable Natural Gas (RNG) Project located in the Municipality of Chatham-Kent, Ontario.

Landfill gas generated by decomposing waste will be captured and transformed into RNG that will be processed for injection into the local natural gas distribution system. The project is expected to reduce greenhouse gas emissions by 110,000 tonnes per year. This is enough to heat more than 18,000 Ontario homes every year or about 40% of the homes in Chatham-Kent.

The project will involve the construction of a new RNG injection station at the Ridge Landfill and a 4-inch extra high pressure steel pipeline. Enbridge Gas has identified a preliminary preferred route that runs 5.7 km between Enbridge's Chatham East Line at Blenheim North Station to the Ridge Landfill, and two alternative routes (see map).

Once the study is complete, Enbridge Gas will apply to the Ontario Energy Board (OEB) for approval to construct the project. If approved, construction may begin in spring 2023.

The Process

The study is being conducted in accordance with the OEB's *Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. The study will review the need and justification for the project, describe the natural and socio-economic environment, evaluate the project from a social and environmental perspective, outline safety measures, and describe appropriate measures for impact mitigation and monitoring.

Invitation to the Community

Stakeholder and Indigenous consultation is a key component of this study. Members of the general public, landowners, government agencies, current customers, Indigenous communities, and other interested parties are invited to participate in the study. We are hosting a Virtual Information Session to provide you with an opportunity to review the project and provide input.

Virtual Information Session Website: www.RidgeRNG.ca
Active Dates: Monday, April 25 to Sunday, May 8, 2022

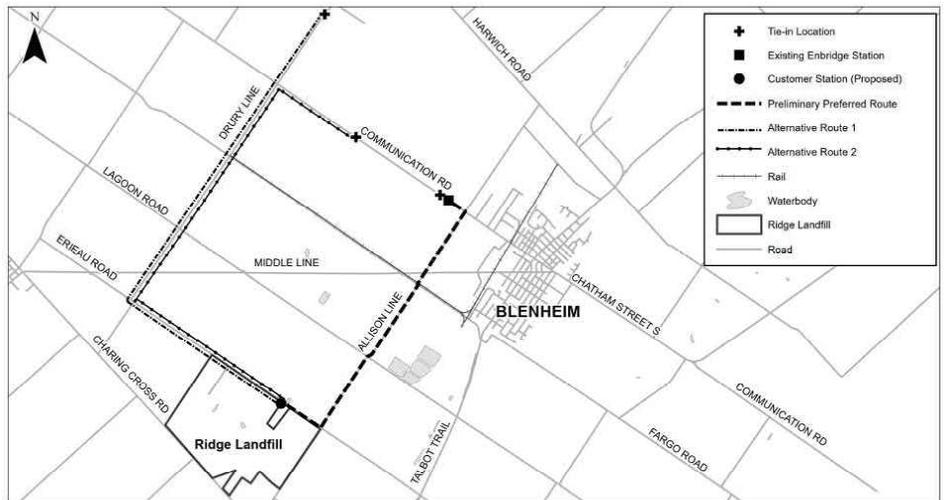
Your input will be used to confirm the preferred route and create mitigation plans to be implemented during construction. If you are interested in participating, or would like to provide comments, please visit the Virtual Information Session website or contact one of the individuals listed here. The last day to submit comments for consideration in the environmental study is **May 24, 2022**.

Enbridge Gas Project Website: www.enbridgegas.com/RidgeRNG

Tanya Turk
 Environmental Advisor
Enbridge Gas Inc.
 101 Honda Blvd.
 Markham, ON L6C 0M6

Alissa Lee
 Environmental Assessment
 Project Manager
Dillon Consulting Limited
 Suite 101 - 177 Colonnade Rd.
 South, Ottawa, ON K2E 7J4

Project Contact Info:
RNGRidgeLandfillEA@dillon.ca
 613-745-2213 ext. 3024



ENBRIDGE GAS INC.

Answer to Interrogatory from
London Property Management Association ("LPMA")

Interrogatory

Reference:

Exhibit B, Tab 1, Schedule 1, page 5, paragraph 13

Question:

In paragraph 13, EGI states that the program would apply to its general service customers.

- a) Please explain why contract customers will not be included in the program.
- b) Will contract customers benefit from the program through lower federal carbon charges?
- c) Does the program apply to all general service customers, including both system gas customers and direct purchase customers?

Response

- a) As noted in Exhibit B, Tab 2, Schedule 1, Page 4, "the Program has been designed with a residential focus and will be marketed as such. Enbridge Gas expects that the small contribution amount of \$2 per month will naturally appeal most to residential customers, in addition to some small commercial customers." The target market identified for the Program does not include contract customers given the small contribution amount of \$2 per month is unlikely to appeal to them.

Further, Exhibit B, Tab 2, Schedule 1, page 5 states that "To the degree large commercial and industrial customers are interested in purchasing RNG, Enbridge Gas submits that this opportunity exists in the market today. Specifically, working with a gas marketer, RNG producer, or other third party, commercial and industrial customers can arrange for the purchase of RNG commodity or RNG-based offsets under a variety of commercial arrangements. Enbridge Gas can facilitate the delivery

of all or a portion of such customer's RNG gas supply through currently available direct purchase and gas transportation options."

- b) The variance tracked through the Federal Carbon Charge – Customer Variance Accounts ("FCCCVA") will be disbursed to all customers subject to the Federal Carbon Charge, which will include contract customers.
- c) As noted on page 4 of Exhibit B, Tab 2, Schedule 1 the Program "will be open to any system gas general service customer across all rate zones..." Please also see Exhibit I.LMPA.11.

Enbridge Gas 2024 Rate Rebasing Customer Engagement

March 2022

Prepared for:

Enbridge Gas Inc.

Innovative Research Group, Inc.

www.innovativeresearch.ca

Vancouver

888 Dunsmuir Street, Suite 350
Vancouver BC | V6C 3K4

Toronto

56 The Esplanade, Suite 310
Toronto ON | M5E 1A7



Enbridge Gas Customer Engagement

2024 Rate Rebasng Customer Engagement Workbook

Filed: 2022-10-31, EB-2022-0200, Exhibit 1, Tab 6, Schedule 1, Attachment 1, Page 293 of 550

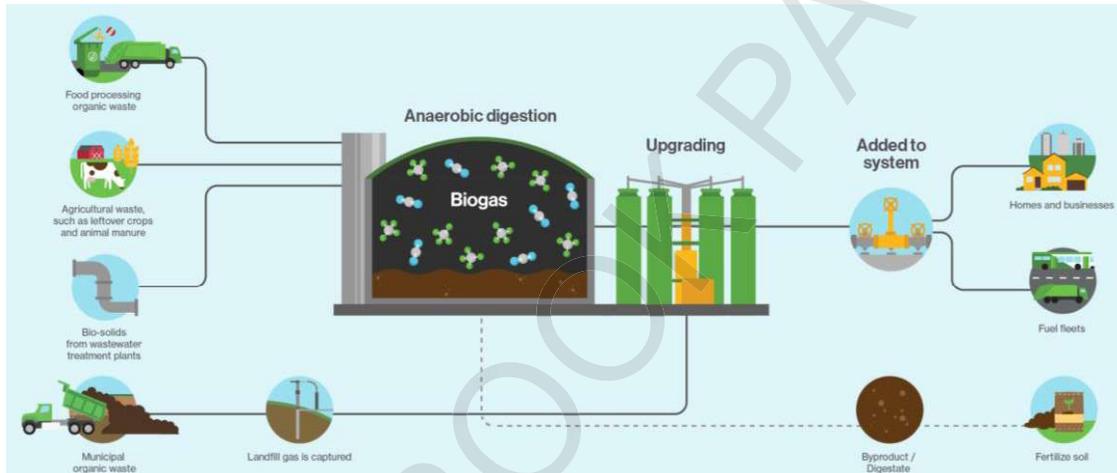
Cost of the fuel

Fuel Choices

Renewable Natural Gas

Enbridge Gas is looking at options to blend more Renewable Natural Gas (RNG) into the natural gas it delivers to green the gas supply. The gas is derived from organic waste from farms, landfills, and water treatment plants. The gas is then blended with traditional natural gas and supplied to customers using existing natural gas infrastructure.

RNG is considered to be carbon neutral and would reduce GHG emissions to help meet climate change targets. Every one percent of RNG in the gas supply reduces GHG emissions by one percent, in a 1:1 ratio. That means every additional 1% of RNG reduces your natural gas GHG emissions by 1%, and across the Enbridge Gas system, this is equivalent to taking 55,000 cars off the road.



Enbridge Gas is developing a plan to increase the blend of RNG in the gas system from 0.5% in 2025 to a higher amount over the course of the 2024 to 2028 plan and beyond. This amount is limited by the amount of RNG available in the market. Since the cost to produce RNG is currently higher than that of traditional natural gas it could have an impact on your rates.

The federal carbon charge would not be applied to the volume of RNG on customer bills, which is accounted for in the costs shown below.

Cost of the Fuel

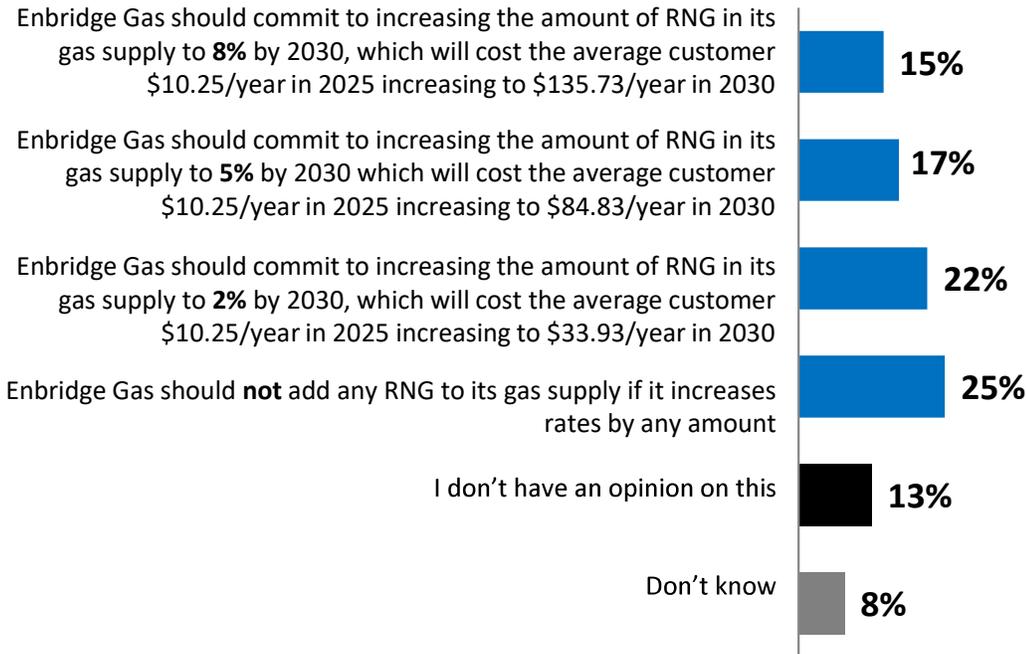
Renewable Natural Gas

Filed: 2022-10-31, EB-2022-0200, Exhibit 1, Tab 6, Schedule 1, Attachment 1, Page 294 of 550



Considering this, which of the following is closest to your view?

[asked of all respondents; n=5,400]



	Rate Zone				Union Region		Consumption			LEAP Qualification		
	Total	EGD	Union	North	South	Low	Med-low	Med-high	High	Yes	No <\$52K	No >\$52K
Increasing the amount of RNG in its gas supply to 8%	15%	15%	14%	12%	15%	13%	15%	15%	15%	8%	12%	20%
Increasing the amount of RNG in its gas supply to 5%	17%	17%	18%	18%	18%	18%	17%	18%	16%	7%	17%	21%
Increasing the amount of RNG in its gas supply to 2%	22%	22%	23%	24%	22%	23%	22%	21%	22%	18%	23%	24%
Should not add any RNG to its gas supply	25%	26%	24%	25%	24%	24%	24%	25%	28%	31%	26%	21%
I don't have an opinion on this	13%	13%	12%	13%	12%	13%	13%	13%	12%	21%	13%	10%
Don't know	8%	8%	9%	8%	9%	8%	8%	9%	7%	16%	9%	5%

Renewable Natural Gas (Biomethane) Feedstock Potential in Canada



2020

Renewable Natural Gas (Biomethane) Feedstock Potential in Canada

Funded by
Natural Resources
Canada

Financé par
Ressources naturelles
Canada



FINAL REPORT

March 2020

Authors:

Jamie Stephen, PhD

M. Jean Blair, MSc

Liz Brennan, MSc

Susan Wood-Bohm, PhD

EXECUTIVE SUMMARY

Renewable natural gas (RNG), also known as biomethane, is a near-pure methane gas that can be blended with natural gas and used for building space heat/hot water, industrial process heat, electricity generation, and transportation. Although much higher cost than current (2020) natural gas prices, RNG can be produced to be cost competitive with diesel fuel. Its ease of integration within the existing natural gas infrastructure and lower carbon intensity than natural gas and diesel has led to significant interest in fuel switching to RNG for greenhouse gas emission reductions. Previous studies have estimated Canada's RNG potential using top-down analyses of national and provincial livestock manure, urban waste, industrial waste, landfill gas, and crop residue resources. While these analyses have helped to justify establishment of a small but growing RNG industry in Canada, Natural Resources Canada sought to better understand the RNG feedstock potential at a more localized geographic scale. TorchLight Bioresources was contracted by Natural Resources Canada to complete an analysis of RNG resources at a regional level of detail. As RNG resource data are not available country-wide at a municipality scale, the Canada Census Division was selected as the discreet geographic unit. Potential RNG feedstocks livestock manure, biosolids (sewage), wastewater, urban organics, corn silage, crop residues, pulp mill sludge, landfills, and unallocated forest resources were quantified and mapped. It was estimated that the theoretical annual RNG potential in Canada is 809 PJ. However, this unconstrained estimate will not be reached commercially due to competing feedstock demands, logistical constraints, and economic viability. The feasible RNG potential was estimated to be 155 PJ. This is equal to 3.3% of Canada's current natural gas consumption and 1.3% of Canada's total energy consumption. By far the largest RNG opportunity is crop residues, followed by landfill gas. Livestock manure, biosolids, wastewater, urban organics, and pulp mill sludge could provide approximately 40 PJ, which is equal to 0.9% of Canada's natural gas consumption and 0.3% of Canada's energy consumption.

The highest RNG opportunity regions include southwest Ontario and Quebec (corn residue silage, hog and poultry manure, landfills) and large cropland regions of Saskatchewan and Alberta (crop residues, cattle manure in Alberta). However, should crop residues be excluded, the largest RNG opportunity regions are near Canada's major population centres. A comparison of potential provincial RNG supply relative to demand showed Alberta and British Columbia are likely to be the largest importers of RNG if volumetric blending of 5% is required in every province. Ontario and Quebec have the largest theoretical RNG production potential, but this volume is highly dependent upon theoretical corn, including grain silage, that may not be available due to competing consumers.

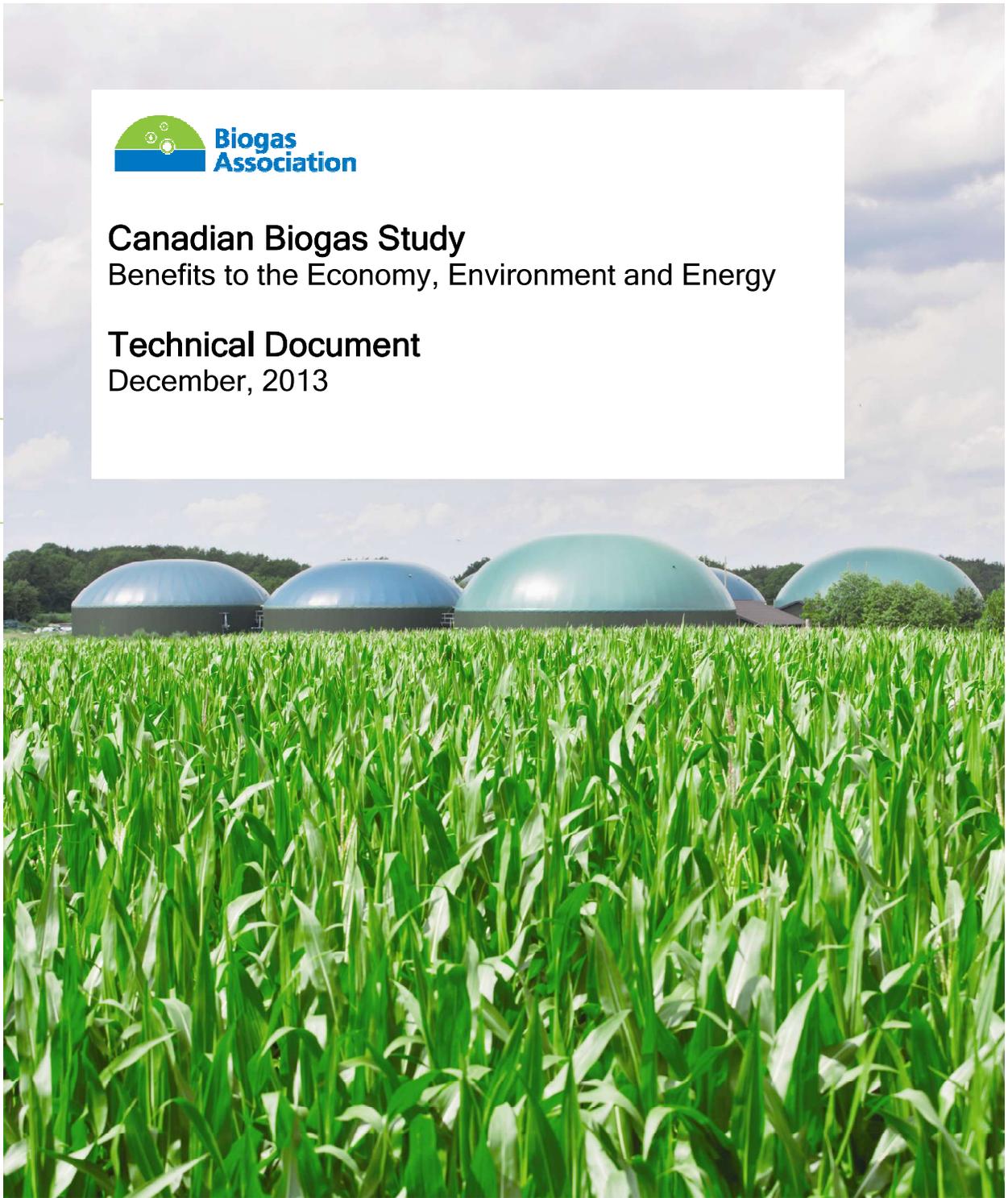
The greatest GHG impact of RNG is likely to be the associated reduction in methane emissions from landfill and livestock operations. Given the small volume of RNG that could be produced in Canada relative to national energy demand, the Government of Canada should seek to assess and optimize the role that RNG and natural gas infrastructure can play in reaching its 2050 Net Zero goal.



Canadian Biogas Study

Benefits to the Economy, Environment and Energy

Technical Document
December, 2013



Authored by:



Executive Summary

In May, 2013, the Biogas Association contracted with Kelleher Environmental (in association with Robins Environmental) to carry out a Canadian Biogas Study to identify existing, available metrics which support the benefits of biogas energy. The potential for biogas production from agricultural digesters, landfill gas, digestion of source separated organics from residential and commercial sources and from wastewater treatment plants across Canada was estimated, as well as the energy, environmental and economic and social/community benefits of increasing the production of biogas energy in Canada.

This Technical Document identifies the metrics found through the research, and also identifies areas where data gaps were identified and where new research is required.

Biogas is a flexible, dispatchable, renewable energy source that can interface uniquely with the growing diversity of Canada's energy mix. The reliability, flexibility, economic and environmental attributes of biogas should be recognized and should be supported through a suite of strong policies in all Canadian provinces. Biogas creates reliable energy regardless of the weather - in the form of heat, power, and pipeline quality gas that can be used for transportation (i.e. natural gas fueled vehicles), household heating or industrial, commercial and institutional processes.

Biogas is distinct from other non-hydro based renewables because it can reliably produce power during times of system peak demand, can be dispatched, and configured to store its fuel during periods of excess power or surplus baseload generation by electricity systems. In addition, biogas systems located on rural electricity distribution systems utilizing synchronous generators have demonstrated positive impacts on distribution system operations by providing stable voltage support in areas of voltage lag and improving power quality. Other benefits of biogas generated electricity include controlled power factor, reduced line losses, improved voltage control on rural feeders, and increasing service stability of electrical supply to local homes and businesses.

Biogas projects are also unique in how they create solutions to managing waste streams and recycling nutrients and carbon back to the soil, and in doing so, protect the local environment, and provide rural economic development. Biogas projects also convert methane (a powerful GHG) to CO₂, creating significantly higher GHG emission reduction value than conventional renewable energy sources.

Biogas can be converted to biomethane (also called renewable natural gas - RNG), a growing commodity in Europe, the US and Canada. It has the potential to reduce greenhouse gas (GHG) emissions from transportation, and provides a range of additional benefits.

Biogas is a 'good news' sustainability story for all: for farmers, for municipalities, for food processors and for the sustainability of the quality of life and environment. Biogas is a renewable energy technology that is on the verge of major growth in North America. Biogas technology development can be a source of technology transfer, job creation and rural economic development.

The destruction of harmful pathogens and methane, the reduction of odours, rural grid support through voltage regulation and the provision of reactive power are examples of biogas benefits. In addition, biogas can be used in a combined heat and power (CHP) configuration as well as injected into the natural gas distribution network to offset the use of fossil fuels. All of these value streams need to be fully supported through strongly supportive procurement and renewable energy policies across Canada.

Replacing fossil with renewable fuels, including biogas, means the reduction of fossil fuel use in the energy and transportation sectors and increased local sustainability of the national energy supply. Biogas can significantly contribute to the protection and improvement of local natural resources and the environment. As biogas is produced locally and within local boundaries, the use of biogas reduces the dependence of local communities on fuels imported from elsewhere and increases the local energy supply.

Five key potential sources of biogas production in Canada were addressed in the Biogas Metrics Study:

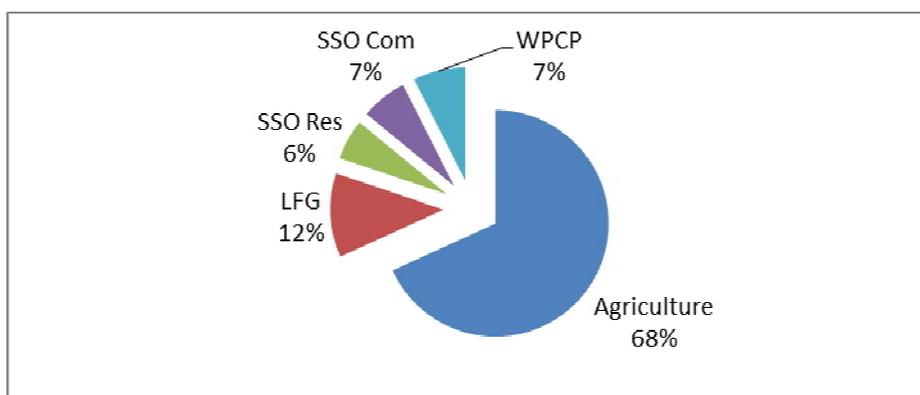
- Agricultural;
- Landfill gas (LFG).
- Source separate organics (municipal/residential)
- Source separated organics from commercial sources (such as hotels, restaurants, etc. but not including industrial organics which are generally managed on-site and not included in Statistics Canada research used for the study) and
- Wastewater treatment plant residuals.

The energy potential of the five sources of biogas energy is estimated at 810MW or 2,420 Mm³/year of RNG. The relative contribution of biogas from the five major sources addressed in the study are presented in Table 1 and Figure 1.

Table 1: Energy Potential From Biogas Sources in Canada

	Agriculture	Landfill gas (LFG)	SSO Residential	SSO Commercial	Wastewater	Total
Electricity Production (MW)	550	95	48	54	60	810
Renewable Natural Gas (RNG) Production (million m ³ /year)	1,650	290	140	160	180	2,420
Contribution to Canada's Electricity Demand	0.9%	0.2%	0.1%	0.1%	0.1%	1.3%
Contribution to Canada's Natural Gas Demand	2.1%	0.4%	0.2%	0.2%	0.2%	3.0%

Figure 1: Contribution of Biogas Sources to Energy Production (Mm³/year of RNG and MW)



All biogas sources together have the potential to reduce Canada's GHG emissions by 36.5 million tonnes eCO₂ per year, which is the equivalent of taking 7.3 million cars off the road. The potential contribution of each biogas source to GHG reduction shows that agricultural digesters have significant potential to reduce GHG (68% of the biogas opportunity), followed by LFG projects (12% of the biogas opportunity). Digesters for commercial and residential SSO and also for wastewater treatment residuals present opportunities of approximately equal size, at 6% to 7% each of the total opportunity.

Sandford Community Expansion

March 27, 2024



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The Future of Energy

As our population grows, the demand for energy is increasing as are concerns about our environment. What can be done to transition to a lower-carbon energy supply that is there when we need it, at a cost we can afford?



Clean

Integrated **\$129** /tCO₂
Electricity **\$289** /tCO₂

Energy systems working together can deliver less costly greenhouse gas reductions.

52 million tonnes reduction in GHG emissions from 1996–2016.

Enhanced conservation measures lower costs & emissions.

Opportunities to partner in **green energy**

Energy communities can partner in green energy technologies like Combined Heat & Power, Geothermal systems and CNG.

H₂ **CO₂**

Greening the gas supply is a realistic, affordable option. Hydrogen and RNG are reducing emissions.

Reliable

Natural gas serves over **30%** of Ontario's energy needs.

Energizing critical technologies that need more intensity than electricity can provide.

Renewable electricity requires natural gas.

Natural gas supply diversity & storage capability delivers **99.9%** energy reliability.

Affordable

Natural gas is the most **affordable** energy choice. It is half the cost of other energy, helping Ontario families and business thrive.

OVER \$580B to replace natural gas with electrification

Full electrification in Canada would present significant financial hardship for consumers.

ENBRIDGE GAS INC.

Answer to Undertaking from
Pollution Probe (PP)

Undertaking

Tr: 20

To confirm that the RNG strategy doesn't exist, and if it turns out it does, provide a copy

Response:

As provided in response at Exhibit I.2.6-PP-38, Enbridge Gas confirms that Enbridge Gas has a Renewable Natural Gas (RNG) Station Strategy, as defined in the Asset Management Plan (AMP).

As provided at Exhibit 4, Tab 2, Schedule 7, Enbridge Gas has proposed a Low-Carbon Voluntary Program (LCVP), which is a program for the procurement of low-carbon energy for large volume sales service customers. LCVP will include the procurement of RNG. The LCVP will be addressed in Phase 2 of this proceeding.

Enbridge Gas confirms that there is no other overarching RNG strategy document.



ONTARIO ENERGY BOARD

FILE NO.: EB-2022-0200

Enbridge Gas Inc.

VOLUME: 4

DATE: July 18, 2023

BEFORE: Patrick Moran

Presiding Commissioner

Allison Duff

Commissioner

Emad Elsayed

Commissioner

1 you just covered. I am assuming those are two different --

2 MS. GIRIDHAR: Those are not gas distribution or the
3 regulated utility.

4 MR. BROPHY: Okay. Thank you. Mr. Shepherd had
5 covered the purchase submission to the province's energy
6 transition panel. I think it was marked as Exhibit K1.4 on
7 the first day. I believe Ms. Wade indicated that it was
8 her team that had coordinated that. Do you know if the
9 unregulated side of Enbridge also made a submission, or was
10 this intended to cover Enbridge as a whole?

11 MS. WADE: Just one moment, please. It was meant or
12 intended to cover Enbridge as a whole.

13 MR. BROPHY: Okay, so there was coordination across
14 all the Enbridge units when you put it together --

15 MS. WADE: That is correct.

16 MR. BROPHY: -- and submitted it? Okay.

17 MS. WADE: That is correct.

18 MR. BROPHY: Maybe we can go to page 37 next, in the
19 compendium. This is an OEB Staff report. This specific
20 one relates to EPCOR gas supply plan but the same issues.
21 It is an illustrative example, and I am sure you will see
22 the same issues apply more broadly. The highlighted text
23 summarizes evidence in that proceeding which indicated that
24 RNG in Ontario is being stripped of environmental
25 attributes and that those attributes are being sold outside
26 Ontario.

27 In this specific example, it was to FortisBC in BC
28 that they went to. Therefore, all that EPCOR got was the

1 methane without any of the environmental attribute. Are
2 you aware of that kind of thing occurring in Ontario?

3 MS. MURPHY: Yes, we are aware that there are a number
4 of RNG projects in Ontario where the RNG is being sold to
5 other jurisdictions, including BC, Quebec, or into the U.S.
6 It can go two ways. One could be the RNG with the
7 environmental attributes attached, or one could just be
8 separating the attributes from the RNG.

9 MR. BROPHY: Okay. My understanding is that almost
10 all the RNG in Ontario is either having the attributes
11 stripped or being sold outside Ontario. Is that your
12 understanding? By far the majority, anyways.

13 MS. MURPHY: I would agree. I think by far the
14 majority of RNG made in Ontario is leaving the province.

15 MR. BROPHY: Okay. Thank you. So, if we remove the
16 emission reductions from RNG by stripping the environmental
17 attributes away, what would that do to the emissions for
18 the diversified scenario in the Guidehouse report if that
19 was the case? I don't know if that is Guidehouse.
20 Probably it is, but it might be a joint answer.

21 MR. RINGO: This is Decker from Guidehouse. I can
22 take a crack at it. It would change the costs because the
23 costs that we have assumed for RNG production includes the
24 methane plus the environmental attribute. So, if methane
25 were to be produced and the attribute were to be sold, then
26 that would be a cost -- you know, it would remove some of
27 the cost from the scenario, and that would just be a
28 regular source of methane, so there would need to be some

1 cost allocated to emissions abatement. It is not -- you
2 know. We didn't consider in our modelling any RNG absent
3 the environmental attribute. Does that help, Mr. Brophy?

4 MR. BROPHY: I think that helps on the cost side. And
5 then the environmental attributes, if they are stripped
6 away and, I am assuming, all of the RNG reductions in your
7 report.

8 MS. ROSZELL: This is Ms. Roszell with Guidehouse. I
9 think that from the Pathways study perspective that
10 wouldn't be an appropriate assumption to make, so we are
11 assuming that RNG -- we are not assuming that RNG is just a
12 form of methane. We are assuming that it is a form of
13 emission reduction, and so, if we were not able to acquire
14 in the Pathways study an RNG supply that was coming with
15 the emission reduction, we wouldn't have included it as a
16 source in the diversified pathway. So the intent here is
17 to demonstrate a future in Ontario where those attributes
18 would not be leaving and, if they were, then the scenario
19 that we are modelling would be one where you would consider
20 an import of RNG with the attributes. So we had bounded
21 the study as potentially in Ontario, as you may recall, and
22 we are assuming that the attributes are staying with the
23 RNG.

24 MR. BROPHY: And that is different than what we are
25 seeing today in Ontario. Would you agree with that, Ms.
26 Roszell?

27 MS. ROSZELL: I would agree with that, and I think
28 that is part of why we are modelling a future where we are

1 demonstrating the value of keeping that RNG in Ontario.

2 MS. MURPHY: Mr. Brophy, if I could just add, as well?

3 I believe in most circumstances the environmental

4 attributes are being sold along with the RNG for the very

5 reason that, if you strip them off, you are not buying RNG;

6 you are just buying natural gas. So I believe, when we see

7 for example if it is being bought by a utility in BC, they

8 are buying a bundled product, the RNG with the attributes

9 attached.

10 MR. BROPHY: And that is exactly where I was going. I

11 think it starts to answer my next question, is for Enbridge

12 and Guidehouse, if you have RNG and you strip away the

13 environmental attributes, do you still call it "RNG"? I

14 think, Ms. Murphy, you have just said no if I am correct.

15 I am assuming the same is true for Guidehouse.

16 MS. ROSZELL: Yes, that is correct. That was

17 basically what I was trying to describe earlier.

18 MR. BROPHY: Okay. Thank you. So, if we can go to

19 page 39 of the compendium, this is an article we can -- you

20 wanted to go up to the title, we can. But I plan just to

21 go to page 39, to see the -- maybe we will just go up to

22 the title for a second. Okay, back to 39, so people know.

23 This is an article on RNG being blended into the gas system

24 in Canada. And it confirms that Fortis BC does not have

25 enough access to RNG. We already know this from last

26 week's discussion and the TorchLight report discussion.

27 So Fortis is purchasing environmental attributes from

28 RNG in Ontario and applying them to fossil gas in BC, which

1 is a bit different. So I don't know if they are calling it
2 RNG; they might be calling it something different. But it
3 looks from this article that they are actually taking the
4 attributes and just applying them to the fossil gas rather
5 than transporting or arranging to transport the RNG itself.
6 Is anyone on the panel aware of that occurring?

7 MS. MURPHY: I can't speak to what Fortis is doing.
8 But I would just note that RNG is bought and sold similar
9 to natural gas. So it can move from one side of the
10 country to the other. Or even with natural gas: if you
11 are buying natural gas from Alberta, that doesn't
12 necessarily mean that is what shows up at your meter. The
13 sort of notional pathway is there for it to get to your
14 premise, but you may not get the exact molecule that was
15 produced.

16 So RNG can be produced at a distance and, if you are
17 buying RNG and you are paying for its delivery, that green
18 molecule may not arrive at your facility. And that is, in
19 Enbridge's mind and is acceptable in the industry, that you
20 are still getting the RNG. You have paid for the RNG. You
21 have paid for delivery or transportation services. You
22 have the contract that says you own the environmental
23 attributes. You have bought the RNG.

24 So that green molecule doesn't exactly show up but,
25 through the same sort of approved practices for buying and
26 selling of natural gas, that is accepted, that you have
27 bought and had RNG delivered.

28 MS. GIRIDHAR: If I may add to what Ms. Murphy said, I

1 don't believe there is any difference in relation to green
2 electrons either, or renewable energy credits related to
3 renewable electricity projects. I think the same principle
4 applies; the exact electron arriving at somebody's doorstep
5 may not be the one emanating from a wind turbine or solar,
6 but they have rights to the environmental attributes. And
7 that is a way of making sure the industry grows and is
8 sustainable.

9 MR. BROPHY: My read of the article is that they are
10 stripping away the environmental attributes and then
11 applying it to fossil gas, not actually nominally
12 transporting the RNG. But Enbridge, if you read it or have
13 read it and you have a different opinion, I am happy to
14 take an undertaking to provide your interpretation. But I
15 am happy to leave it there, as well.

16 MR. STEVENS: It is David Stevens speaking: I mean, I
17 can see from -- we printed out most of the compendia, Mr.
18 Brophy; yours was over 300 pages. We haven't printed all
19 of it out. I know that the witnesses have made their way
20 through. I can't promise that they have read each of the
21 articles within. If you would like them to take the time
22 to read the article and respond now, then we can certainly
23 do that. But I am not sure it is particularly efficient to
24 have a long list of undertakings of this nature.

25 MR. BROPHY: Okay. No, that is fair enough. And if
26 we are ahead on time, we can come back and do what you
27 suggest.

28 Is Enbridge intending to apply environmental

1 attributes to natural gas for purposes of calling it RNG or
2 something similar?

3 MS. MURPHY: I will say no. And what we are looking
4 at, if you look at our planned procurement of RNG under the
5 low-carbon voluntary program, we would be buying the RNG
6 with the environmental attributes attached.

7 MR. BROPHY: The reason I bring it up is if the OEB
8 intends to consider RNG as Enbridge suggests, there needs
9 to be set of rules to define what RNG is, objective
10 guidelines on how to calculate the lifecycle emissions and
11 clarity on when it ceases to be RNG, or it is just plain
12 old methane. Is that your understanding of what would be
13 needed, if we head down that road? Or do you think they
14 already exist, there is a clear guideline somewhere we can
15 go to, to understand all of that?

16 MS. MURPHY: I am not aware of necessarily a clear
17 guideline in Ontario. I have seen similar types of
18 documentation, say, from -- the BCUC has recently
19 undertaken to look at some of those questions and has come
20 out with a paper. So I think there are things in other
21 jurisdictions that we could learn from. But I am not aware
22 of anything from the OEB or the Ontario government that
23 would outline what is RNG, or all of these issues that you
24 have mentioned. The only thing I would say is RNG is maybe
25 defined in some legislation, such as the emission
26 performance standards. It is very vague.

27 MR. BROPHY: Okay. Thank you. We can move to page 46
28 of the compendium, this recent slide from Enbridge, a

Pollution Probe #5

Reference: In Q3 of 2023, EPCOR started receiving RNG into its distribution system. However, EPCOR is not purchasing the environmental attributes of this RNG gas. As such, EPCOR will purchase the RNG as another source of local supply, and will not take ownership of the environmental attributes generated from the production of RNG. [Section 6.1]

- a. Please confirm that EPCOR is just providing access for RNG to be transported (i.e. claimed) by parties outside its system when it provides RNG access to its system.

EPCOR RESPONSE: Confirmed.

- b. Please confirm that RNG generated in Ontario and being injected into the EPCOR system is being exported (actually or nominally) outside of Ontario to jurisdictions such as BC and the US.

EPCOR RESPONSE: Confirmed.

- c. Please confirm that given the RNG environmental attributes are not flowing to EPCOR, that the methane in its system is not being treated as RNG (i.e. is counted as regular natural gas for emissions purposes).

EPCOR RESPONSE: Confirmed.

- d. RNG typically ceases to be RNG once the environmental attributes are striped from it. Please confirm that EPCOR is not procuring RNG, but simply enabling access to the gas system and augmenting its supply of methane equivalent to natural gas).

EPCOR RESPONSE: Confirmed.



ONTARIO ENERGY BOARD

FILE NO.: EB-2022-0072

Enbridge Gas Inc.

VOLUME: Stakeholder Conference

DATE: May 5, 2022

1 MR. BROPHY: Okay. Fair enough. So the next question
2 I had is: Enbridge had indicated previously that your
3 aspirational goal for RNG was 5 percent. Is that still
4 your goal? Or is there a newer number?

5 MS. BRUNNER: Which reference are you referring to?
6 The 5 percent?

7 MR. BROPHY: It would have been -- I think it is in
8 your original Gas Supply Plan, right, that started this
9 five-year thing. I have to go find the exact reference. I
10 didn't pull it up, but I had that noted down.

11 MS. BRUNNER: Right. So we did -- do intend to try to
12 increase the use of RNG within our system.

13 5 percent is an aspirational number that is out there
14 in a few places, but not necessarily how we would achieve
15 that 5 percent is out there.

16 So I think your question is what would be required and
17 there are many different ways that we could get to that
18 5 percent through potentially increased voluntary
19 participation, or inclusion in our greater portfolio with
20 certainty of cost recovery.

21 There would be a few different means we could use to
22 get to 5 percent.

23 MR. BROPHY: Okay. Then when I looked at your
24 scorecard you filed with your compendium, it said your RNG
25 penetration is zero percent, which I think kind of
26 undermines and under estimates that you have -- the stuff
27 you have done, because you have done stuff, right? But I
28 guess it is lost in the rounding.

1 So do you know what the percent is? I guess because
2 you only -- you had no decimal points there. It looks like
3 nothing has happened.

4 MS. BRUNNER: I did calculate the percent. I think I
5 shared in my speaker's notes that it was less than one
6 percent. But also, it is a line of zeroes, but it's
7 .000002 percent. So five-zeros-two percent.

8 MR. BROPHY: Okay. We're not at 5 percent yet.

9 MS. BRUNNER: No.

10 MR. BROPHY: Okay. I guess the -- I think the last
11 question I had was on the clean energy project and it was
12 around -- so since that was commissioned, what the percent
13 of hydrogen blended was into that closed loop gas stream.
14 I think the --

15 MS. BRUNNER: It varies up to that maximum of
16 2 percent. That is the best information that we have at
17 this time.

18 MR. BROPHY: It varies. So you did get up to
19 2 percent at one point?

20 MS. BRUNNER: I can't actually confirm that. That is
21 just the maximum they will allow to be blended into that --

22 MR. BROPHY: Okay.

23 MS. BRUNNER: -- loop.

24 MR. BROPHY: So I guess -- well, Enbridge somewhere
25 must know how much hydrogen has been blended, but it sounds
26 like you don't know.

27 MS. BRUNNER: No, I don't know.

28 MR. BROPHY: Okay. Thank you. I will stop there,



ONTARIO ENERGY BOARD

FILE NO.: EB-2022-0072

Enbridge Gas Inc.

VOLUME: Stakeholder Conference

DATE: May 6, 2022

1 in sort of graphic form the constituent parts of the demand
2 day supply and the term associated with each.

3 MR. ELSON: Thanks, David. Thanks, Nicole.

4 MR. STEVENS: And the second quick thing that we
5 wanted to touch on is, Nicole just wanted to respond more
6 directly to the question that I think was from Mike Brophy
7 of Pollution Probe around the definition associated to RNG.

8 MS. BRUNNER: Thanks, David. So I -- the definition
9 that we had in the voluntary RNG proceeding, so I will
10 share that with you now. So RNG, also referred to as
11 biomethane, is a renewable energy source that has a lower
12 carbon content than regular natural gas and therefore
13 results in lower greenhouse gas emissions.

14 And then in addition to that we did just confirm
15 yesterday that we could share that StormFisher, who
16 provided us the small purchase of RNG that we were able to
17 make earlier this year, is -- provided us carbon-negative
18 RNG.

19 MR. BROPHY: It is Michael Brophy. Thank you very
20 much for that. So the StormFisher, you are just providing
21 the stats on the RNG they sold you? Is that what I am
22 picking up?

23 MS. BRUNNER: Correct, yes, they confirmed it is
24 carbon-negative and that can be shared publicly.

25 MR. BROPHY: Okay. And then does that -- like, they
26 did a, I think you called it an attestation or whatever.
27 How does it link to that?

28 MS. BRUNNER: So they would have attested at the time

1 that they were RNG, and now they've provided this
2 information on top of that, to share that they were carbon-
3 negative, and they actually did share it at the time. I
4 just didn't have it yesterday in front of me.

5 MR. BROPHY: Okay. Great, thank you.

6 MS. BRUNNER: No problem, thanks.

7 MR. STEVENS: Thanks, Nicole. Thanks, Mike.

8 So those were the two items carrying over from
9 yesterday that we wanted to address.

10 So next I think we propose to turn back to the
11 schedule that we have in the compendium where we have three
12 different topic areas to talk about today.

13 We're smack-dab on time, which is great. I know that
14 there might have been a couple carry-over questions from
15 yesterday, Dwayne, and I am not sure, A), how long those
16 might be, and B), when you were planning to ask them, but
17 if that is something we should talk about before we jump
18 in, let me know.

19 MR. QUINN: Thanks, David. I don't know that we need
20 to talk about it at the outset, because the content of this
21 morning is portfolio and transportation contracting
22 changes, and I think most of my questions would fall under
23 that category anyway.

24 So what I would propose to do is allow you to stay on-
25 track, and then, if I may, circle back to a couple of
26 questions I wasn't able to communicate well yesterday and
27 then carry forward with the questions I continue to have
28 under portfolio and transportation contracting changes. So



ONTARIO ENERGY BOARD

FILE NO.: EB-2024-0111

Enbridge Gas Inc.

VOLUME: Technical Conference

DATE: July 22, 2024

1 MR. BROPHY: Great. Thank you, very much. Okay. The
2 next question is related to the response to Pollution Probe
3 5(b) and (d). In that response, Enbridge indicates that
4 with the exception of proposals for the low-carbon
5 voluntary program, and RNG in the gas supply commodity
6 portfolio, the energy transition technology fund and the
7 low-carbon energy project, all of the safe-bet actions
8 listed have been discussed as part of Phase 1.

9 So I think what you're suggesting is that there is
10 some new, safe-bet requests and items for Phase 2. But
11 there are some that were discussed at length in Phase 1.
12 And I am aware of that.

13 Does Enbridge believe that any of the safe bets were
14 approved, or approvals were granted by the OEB in Phase 1?
15 I know there was a lot of discussion, but I am not aware of
16 any approvals against any of the safe bets on the list.

17 MS. MURPHY: Jennifer Murphy: I think when you look
18 at the list that you have provided in the question, there's
19 actually a number that didn't have a specific ask within
20 these ones. So we have said those two are the remaining
21 for Phase 2. But, for example, maximizing energy
22 efficiency, there wasn't an ask at all in rebasing; that's
23 dealt separately through the DSM proceeding.

24 So, in our minds then, it's just the fund and the low-
25 carbon voluntary program that are the two asks that are
26 being discussed in Phase 2.

27 MR. BROPHY: Okay. So there weren't any approvals
28 related to safe bets in Phase 1?

1 MS. MURPHY: Just give me one moment to read the list.

2 MR. BROPHY: Sure.

3 MS. MURPHY: I don't believe there was any specific
4 approvals.

5 There are a few items that I believe have capital
6 associated with them that would have been in the asset
7 management plan.

8 So, for example, I believe we have capital, and Ms.
9 Fernandes may jump in and support this answer. But I
10 believe we have capital, for example, for supporting RNG
11 projects, compressed natural gas projects. So those are
12 part of the third line and the fourth line.

13 And then there was also funding related to the
14 hydrogen study, for example, that was an asset management
15 plan. And that falls into, I think, one or more of these
16 categories.

17 So I don't I don't think there are specific approvals
18 in those cases, but it would have been part of the capital
19 budget.

20 MR. BROPHY: Okay. Thank you, for that. And my
21 understanding is in Phase 1 there was a capital envelope
22 approved, but Enbridge didn't request and the OEB didn't
23 provide specific asset management or specific project
24 approval. So Enbridge goes away and, you know, makes
25 decisions, you know, based on capital projects. But it's
26 not a specific list that was approved. Correct?

27 MS. FERNANDES: Nicole Fernandes: Yes, that's
28 correct.



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500 Consumers Road
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Canada

August 23, 2024

VIA RESS AND EMAIL

Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Nancy Marconi:

**Re: Enbridge Gas Inc. (Enbridge Gas, or the Company)
EB-2024-0111 - 2024 Rebasing and IRM – Decision on HRAI Motion**

On August 22, 2024 the OEB issued a Decision on HRAI Motion and Procedural Order No. 4 directing Enbridge Gas to produce certain materials. Pursuant to the Decision please find enclosed the updated interrogatory responses to Exhibit I.1.18.HRAI-5 (business plans) and Exhibit I.1.18.HRAI-10 (customer contract and dealer agreement).

Enbridge Gas will file an updated response to Exhibit I.1.18.HRAI-2 (Canada Infrastructure Bank (CIB) credit agreement and MOU) as soon as possible. Since the issuance of the OEB's Decision on the HRAI Motion on August 22, 2024, Enbridge Gas advised CIB of the ordered disclosure. CIB has indicated that it requires more time to consider and address the impact of the OEB's order prior to the filing and service of its documents on all parties. CIB advises that after having the opportunity to consider its position, CIB would appreciate the ability to speak to the confidentiality of its records which were ordered to be produced on the same schedule afforded to Enbridge Gas. Enbridge Gas will keep the OEB apprised.

Enbridge Gas will file an updated interrogatory package next week, after any updated answer to Exhibit I.1.18.HRAI-2 has been provided. As part of that filing, Enbridge Gas also expects to include an updated answer to Exhibit I.1.1-ED-57, as directed by the OEB's August 8, 2024 Decision on Confidentiality

In accordance with the OEB's revised [Practice Direction on Confidential Filings](#) effective December 17, 2021 (Practice Direction), Enbridge Gas is requesting confidential treatment of portions of the attachments to the updated interrogatory responses being filed. Attachment A to this letter sets out details of the requests being made.

As required by the Practice Direction, Enbridge Gas has filed confidential unredacted versions of each of the applicable documents, identifying all portions of the document for which confidential treatment is claimed, as well as non-confidential redacted versions of each such document.

Enbridge Gas notes that in accordance with the Practice Direction, representatives of parties who sign the OEB's Declaration and Undertaking will be provided with unredacted versions of the confidential documents. The redacted information in those documents relates to Enbridge Sustain's business plans and operations and includes non-public and commercially sensitive information about pricing, market intelligence and future growth planning relating to Enbridge Sustain. This is commercially sensitive information, and access to such information could give competitors information not otherwise available that could (at least theoretically) provide some advantage unrelated to the proceeding.

Enbridge Gas requests that permission to access the unredacted version of the confidential documents associated with Exhibit I.1.18-HRAI-5 and Exhibit I.1.18-HRAI-10 not be granted to representatives of parties/HRAI members who are competitors or potential competitors to Enbridge Sustain. The OEB's ability to limit who can receive certain confidential documents is set out in section 6.1.7 of the Practice Direction.

Specifically, Enbridge Gas requests that while access to the confidential documents can be provided to HRAI's counsel and HRAI's registered representative (Mr. Luymes) upon submission of a Declaration and Undertaking, access should not be permitted to representatives of HRAI members. Enbridge Gas notes that HRAI has now filed Declaration and Undertakings from four consultants who are expected to be HRAI witnesses. Each of these individuals appears to be associated with an HVAC and/or geothermal company in Ontario. Enbridge Gas objects to these witnesses being permitted to view the unredacted confidential documents. Notwithstanding the terms of the OEB's Declaration and Undertaking, the fact is that the redacted information provides confidential insight into the details of Enbridge Sustain's business that is not appropriate to share with potential competitors. Enbridge Gas submits that the limited nature of the redactions means that HRAI ought to be able to prepare evidence addressing Issue 27 even without these witnesses viewing the unredacted documents, particularly since HRAI's counsel and instructing representative will be permitted to review the unredacted documents.

Enbridge Gas does not object to any other intervenor representative who signs the Declaration and Undertaking receiving a copy of the confidential documents, with the exception of Enercare Inc. (which may be a member of HRAI, but which is also separately registered as an intervenor in this proceeding).

Enbridge Gas will post the updated response on its website at www.enbridgegas.com/about-enbridge-gas/regulatory. Enbridge Gas will send a copy of this letter, and a link to the website page, to all parties to the proceeding.

Should you have any questions, please let us know.

Enbridge GDS retail strategy

Appendix document

June 15th, 2021



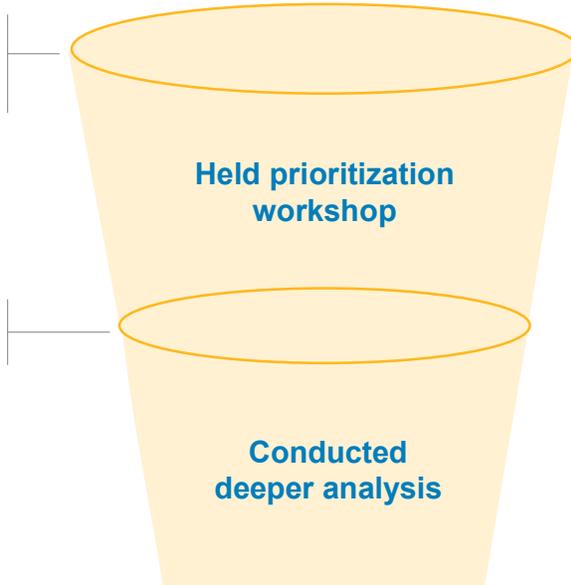
Over 4 weeks, we worked closely with experts and leveraged proprietary and public data sources to develop this perspective



 GDS experts	 McKinsey experts	 Third party experts	 McKinsey proprietary models	 Public data sources	 Company case studies
<ul style="list-style-type: none"> • Abbas Chagani, Business Development • Ian Macpherson, Business Development • Karen Sweet, Market Research & Analysis • Malini Giridhar, Business Development and Regulatory • Mark Kitchen, Regulatory Affairs • Ravi Sigurdson, Business Development • Scott Dodd, Business Development 	<ul style="list-style-type: none"> • Adrian Booth, Fuel Cells • Alessandro Agosta, Retail • Alex Bolano, Solar • Blake Houghton, Gas Utility • Bobby Dean, Resiliency • Bruno Esgalhado, Solar • David Frankel, Resiliency • Evan Polymeneas, Retail • Geoff Olynyk, Ontario Utility/Resiliency • Giulia Siccardo, Batteries • Jason Finkelstein, Resiliency • Kanat Emiroglu, Retail/Resiliency • Lorenzo Milanesi, Retail • Marie-Estelle Marjollet, Heat Pump • Nadim Chakroun, Solar/Heat Pump • Sam DeFabrizio, Solar • Tom Hellstern, Fuel Cell 	<ul style="list-style-type: none"> • Project director at Canadian renewables company • Sales manager at US generator manufacturer • Solar industry practitioner in Canada 	<ul style="list-style-type: none"> • Battery storage forward cost curve • Heat pump cost efficiency • Residential solar adoption • Solar capex forecast • Solar LCOE 	<ul style="list-style-type: none"> • Canada Energy Regulator • Canada Mortgage and Housing Corporation • Global Data • Independent Electricity System Operator • Lazard • MaRS Cleantech center • National Renewable Energy Laboratory • NREL Annual Technology Baseline • Ontario Energy Board • Stats Canada • Wood Mac 	<ul style="list-style-type: none"> • Alectra • Bell • Bloom Energy • British Gas • Constellation • DTE • E.ON • Enel • Enercare • Engie • Fronius • Generac • Generation solar • Green Mountain Power • Kiwigrd • Mpower • New Jersey Resources • Nrstor • NV energy • Octopus Energy • SoCalGas • Sonnen • Stem • Sunrun • Tesla • Toronto Hydro • Total Power

A quick filter on feasibility for Enbridge prioritized 2 Opportunity Areas in the retail energy market

Identified **six Opportunity Areas** that define the retail energy market



Prioritized **2 Opportunity Areas**



We started by **identifying 6 Opportunity Areas** that cover the **full-set of opportunities** within the retail energy market

Through a **cross-functional prioritization workshop** with the GDS team, we **prioritized 2 Opportunity Areas**

A **deeper analysis** was then conducted, looking into the **economics and viability of specific products** within the 2 prioritized Opportunity Areas

6 Opportunity Areas were evaluated to identify long-term opportunity for GDS growth aligned to market trends



 Prioritized opportunities

Opportunity Areas	Description	Prioritization and rationale
 Utility retail services	Provide adjacent residential utility services such as energy services (e.g., appliance leasing), appliance insurance, mobility solutions and home energy management by leveraging the existing utility customer base	 These two priority areas were selected based on solutions that: <ul style="list-style-type: none"> – Have proven examples of profitable, successful business in other regions – Leverage the GDS existing customer base and operations infrastructure
 Residential resiliency solutions	Offer programs and products boosting residential resiliency such as natural gas back-up generators, batteries and micro-CHP fuels cells. These solutions expand into unregulated residential power add-ons	 <ul style="list-style-type: none"> – Allow GDS to develop solutions that are replicable at scale with no customization – Were not being assessed in other parts of Enbridge
 C&I energy management services	Provide energy management services to commercial and large industrial players, lowering their carbon footprint and achieving savings	 Requires additional work to develop standardized products within segments
 C&I energy resiliency	Provide distributed energy resources such as cogeneration and microgrids to C&I customers to increase the reliability of their energy supply	 For some segments, customization still required and for others, leaders are already developing modular solutions
 Decarbonized infrastructure (out of scope)	Offer decarbonization solutions to customers, such as premium low carbon products (RNG/H2 blended fuels) and CO2 offtake services through CCUS. Establish RNG / Hydrogen production to decarbonize existing gas infrastructure and capture LCFS credits	 Deemed out of scope – being evaluated elsewhere in Enbridge
 Commodity retail (out of scope)	Expanded offering of gas and power retail into unregulated markets (e.g., US deregulated states)	 Deemed out of scope

Within residential retail and resiliency solutions, we evaluated products both as defensive plays and as offensive pushes into new areas of the Ontario retail energy market



■ Defensive play
 ■ Offensive play
 ● Unable to estimate market scale potential of highly nascent market
 ● Opportunity
 ● Challenge
 ● Challenge

	← Defensive							Offensive →			
	Gas furnace	Gas heat pump	Hybrid heat pump	Fuel cells	Gas back up generators	Ground source heat pump	Air source heat pump	Electric vehicle charging	Smart home technologies	Storage	Solar
Target customers	Residential	Residential	Residential	Residential	Resi & SMB	Resi & SMB	Residential	Resi & SMB	Resi & SMB	Resi & SMB	Resi & SMB
Market scale potential	●	●	●	●	●	●	●	●	●	●	●
Per unit economics¹ (today)	●	●	●	●	●	●	●	●	n/a	●	●
Per unit economics¹ (5 years)	●	●	●	●	●	●	●	●	●	●	●
Ability to create competitive advantage	●	●	●	●	●	●	●	●	●	●	●
Alignment with Enbridge capabilities	●	●	●	●	●	●	●	●	●	●	●
Recommendation	Do not pursue The market in Ontario is now dominated by two incumbents making it difficult to compete and scale	Monitor and pilot to make viable Continue to drive scale potential and support technological progress to make GHP a viable, attractive, defensive play. Continue to pilot and work with builders to bring to market	Monitor and pilot to make viable Continue to pilot hybrid solutions to create a commercially viable offering for builders to include in new home construction projects, as a defensive play	Do not pursue No viable use case in residential and SMB markets	Prioritize for further review Growing in popularity (e.g., US market), economically viable & linked to resiliency theme Adds another burner tip to households making them a viable defensive play	Monitor Niche applications with little large-scale potential	Monitor Per unit economics are far 'out of the money in Ontario' A step change in technological progress could make them viable, GDS could pursue as an offensive play	Do not pursue In-home EV charging is becoming a commoditized product with little opportunity for GDS to provide additional value (e.g., installation is very simple)	Prioritize for further review Rapidly growing market that has not reached saturation. Provides opportunity for GDS to create a monetizable energy network	Prioritize for further review Per unit economics are becoming more attractive and customer demand is increasing Compelling resiliency offering for customers without gas or as add on to solar	Prioritize for further review Per unit economics are 'in the money' in 2024-2025 Customer interested in solar is increasing and no large competitors in Ontario make this an attractive offensive play

1. Does not include any assumptions on subsidies; subsidies would improve economics

SMB = small and medium business; smart home technologies includes smart thermostats and other IoT technologies to load bearing appliances and power generation in the home

GDS defensive play: context and overview

Context

Macro trends are shifting energy usage patterns **away from natural gas** toward new green technologies

Recent policies in Canada demonstrate **government alignment to energy transition goals**, supporting the **gradual transition away from natural gas** use

New gas connections in GDS service territory have **begun to decline**



The Defensive play for GDS

GDS can **support the commercial viability of new gas based technologies** to keep gas in homes in Ontario, especially in new builds

Though **gas heat pumps** and **hybrid heat pumps** are 'out of the money' today, **technological progress could make these technologies viable**, especially with support from GDS to bring them to market

The short term play is to **continue to pilot, monitor and push within the regulated framework until a cost breakthrough occurs**, in which point an unregulated affiliate organization can be leveraged

The medium term play is to **create a leasing business inside the affiliate** for new in-home heating technologies; however the strategy to compete in the market will need to be defined



Enbridge Overall Strategic Priority Fit

Pros

- ✓ **Hedge against energy transition:** Maintain customers as customers shift to alternatives with push to net-zero.
- ✓ **Complement Existing Business:** Leverage resources, systems, technology in similar business model
- ✓ **Well established business model:** rental contracts well established in Ontario market and have held up from legal challenges
- ✓ **Disciplined Capital Allocation:** Similar investment in long-term infrastructure with individual contracts vs regulation
- ✓ **Extend Growth:** We increase our scope by moving into distributed generation and power storage
- ✓ **Execute the Capital Program:** Allows GDS to maintain and its market share in the space heating sector, and enter the cooling market

Cons

- ✗ How quickly will energy transition accelerate with market share
- ✗ Extremely competitive home services market with small and large incumbents with potential for new entrants
- ✗ Potential regulatory challenges

Investments in low carbon solutions offer a compelling opportunity for GDS to mitigate impact of losing customers and gas load while maintaining its incumbent position as the energy provider of first choice in Ontario



Executive Summary

- **Recall:** Enbridge Sustain is a **de-risking and growth strategy** brought forward in response to the evolving energy landscape to:
 - **Insulate the gas business against potential future losses**
 - Uniquely differentiate the brand and create **new utility-like returns** in new energy evolution markets
 - Be the leading provider and trusted advisor for **sustainable energy building solutions, creating goodwill for Enbridge Inc.**
- **Priority Products:** Residential Hybrid Heating and Multi-unit Geothermal. A "test-and-learn" method will guide product catalogue expansion.
- **Financial Modeling:** Scenarios evaluated yield a DCFROE ranging from [REDACTED] to [REDACTED] with capital expenditures of [REDACTED] to [REDACTED] respectively
- **Revenue Mechanics:** Profits are sourced from financing capital & services via long-term contracts. Major costs include equipment and installation and only incurred on contracted revenues. Operating expenses scale with number of customer enrolled. ROI is 8 years for Hybrid Heating, 10 years for Geothermal. Projecting [REDACTED] market share in core segments (e.g., residential retrofit for Hybrid Heating).
- **Operational Structure:** Predominantly partner-driven sales and installation; evaluating potential changes to this model
- **Competitive Pricing:** Geothermal and Hybrid Heating already offer comparable pricing to conventional gas heating, a gap poised to expand
- **Identified Risks:** Include market understanding, competition, and distribution strategies. Countermeasures / mitigations developed
- **Action Item:** Seeking green light to proceed with 2024+ proposal, with goal of reaching a higher growth scenario, positioning Sustain as a frontrunner in sustainable energy services for homes and businesses



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

DECISION AND ORDER

EB-2023-0200

ENBRIDGE GAS INC.

**Application for Leave to Construct Sandford Community
Expansion Project**

BEFORE: Robert Dodds
Presiding Commissioner

Michael Janigan
Commissioner

David Sword
Commissioner

July 4, 2024

are its best available information based on Company data for homes within the broader area relevant to the Project area.⁶⁶

In response to Environmental Defence's submissions on the exclusion of normalized reinforcement costs in determining the cost-effectiveness of the Project, Enbridge Gas stated that it had already indicated in interrogatory responses that normalized system reinforcement costs are not applicable to community expansion projects and that all reinforcement costs associated with the Project are directly applied to the Project in the discounted cashflow analysis. Enbridge Gas added that the costs of reinforcement required for community expansion projects are separate, and not included within calculations of normalized system reinforcement costs.⁶⁷

In response to Pollution Probe's submission on the appropriate NGEP funding amount for the Project, Enbridge Gas stated that its evidence and interrogatory responses state that the Project is eligible to receive funding up to \$4.4 million, which Enbridge Gas noted is consistent with the submissions of OEB staff and Environmental Defence.

Findings

Project Costs

The OEB finds that the updated total estimated cost of the Project is reasonable and in accordance with the application of the regulatory framework established for the NGEP program. In particular, the capital requirements have been adjusted to accommodate new research and information obtained by Enbridge Gas since the original proposal in Phase 2 of the NGEP process. The provision of a 10% contingency embedded in estimated costs is consistent with that set for other NGEP projects. The OEB also accepts Enbridge Gas's submission that all Project reinforcement costs have been directly applied in the discounted cashflow analysis that has been submitted.

Economics

In addressing the issue of need, the OEB notes that the evidence, inquiries and submissions in this proceeding have dealt extensively with the impact of the possible installation of electric heat pumps. This impact has centered upon potential cost savings associated with their adoption by the customers of the communities to be served by Enbridge Gas. Such take-up might occur either before or after the extension of the natural gas service to the communities. In turn, the effect of such take-up is addressed as a potential risk to project viability.

⁶⁶ Reply submission, p.14; Exhibit I.ED-39

⁶⁷ Reply submission, pp. 14 and Exhibit I.ED.22

The OEB has itself recognized the potential customer energy savings associated with the installation of such heat pumps and their favourable impact on lowering the consumption of natural gas. The OEB notes that its Decision regarding Enbridge Gas's DSM program that made Enbridge Gas, in cooperation with the federal government's Greener Homes Initiative, the principal delivery agent for an incentivized installation of heat pumps.⁶⁸

The approval of the leave to construct requested in this application does not restrict customers in these communities from obtaining heat pumps either before or after an extension of natural gas service to these communities. Nor does it remove Enbridge Gas's DSM program responsibilities in these communities.

The OEB notes Enbridge Gas's evidence supporting the economic viability of the Project is also supported by a positive response to its outreach and solicitation provided by the market survey results. The extrapolation of such results to the financial metrics of the proposed expansion is a key factor in that requisite economic assessment.

The OEB acknowledges that OEB staff noted the risk to the economic viability of the Project if the projected customer attachments do not occur and that Environmental Defence, Pollution Probe and Elizabeth Carswell drew attention to the possible effects of DSM, fuel switching or the broader energy transition over the 40-year revenue horizon.

However, the OEB agrees with Enbridge Gas's assertion that that the decisions of individual customers, now and in the future, to connect and maintain natural gas service must take into consideration more than the current cost effectiveness of electric heat pumps and factor in other variables and uncertainties associated with the evolution of any energy transition that transpires. Additionally, the OEB notes that at the same time, any survey is unlikely to capture all aspects of the likely take-up and continuance of natural gas service with complete accuracy in a changing environment of new energy efficient modes and programs, government policies and prices.

The policy determination that chosen communities should receive NGEP-based financial assistance for the provision of natural gas service is a government prerogative supported by legislation. It provides the foundation for the OEB's finding of the NGEP program fulfills a need that has been so deemed to be in the public interest. The existence of potential changes in the delivery of energy and its impact on natural gas

⁶⁸ Decision and Order, EB-2021-0002, Enbridge Gas Inc. Application for Multi-Year Natural Gas Demand Side Management Plan (2022 to 2027), November 15, 2022, page 28

systems is well known to Enbridge Gas who must be prepared to be competitive to maintain its viability with customers.

The OEB, in approving Enbridge Gas's application for leave to construct, must ensure that the interests of all Enbridge Gas's customers are also protected. One pillar of that protection is the existence of the ten-year RSP in which Enbridge Gas is responsible for any shortfall in revenues to meet its revenue requirement. This provides some insulation against possible under achievement of its customer sign-up estimates or projected natural gas consumption.

In the first rebasing following the expiration of the RSP, the OEB will review the actual project costs and revenues and determine what amount should be recognized in rates. The subsidy or contribution to the expansion of service provided in O. Reg. 24/19 is specific and limited and does not abrogate the general principles of utility cost allocation going forward.

All options will be available to the OEB in the rebasing following the conclusion of the RSP with respect to the appropriate rate treatment of potential capital cost overruns and/or lower than forecast customer attachments/volumes (and associated revenues). Enbridge Gas is not guaranteed total cost recovery if actual capital costs and revenues result in an actual PI below 1.0.

The OEB cannot bind a future panel determining that application to be made by Enbridge Gas post-RSP. However, the OEB notes that if Enbridge Gas's estimate of customers likely to take up natural gas service is correct, existing natural gas customers will have already contributed approximately \$24,003 per customer served by the Project to assist in the expansion of gas in this community. There is a clear and reasonable expectation that such customers will not be called upon to provide a further subsidy to compensate for post-RSP revenue shortfalls.

The OEB does not agree with Environmental Defence's proposition that any attribution of revenue shortfalls to the OEB after the expiration of the RSP will be constrained by the legal principles of energy regulation that allow recovery of investments that were prudent at the time they were made, judged without hindsight. The NGEP program addresses the provision of natural gas service to communities that would otherwise be uneconomic to serve.

Any OEB finding of prudence for a NGEP project proposal and its accordance with the public interest is entirely dependent on the framework of the NGEP and its implementation as set out in the legislation and the OEB decisions. This includes the acceptance of customer attachment and continuance of service projections by Enbridge Gas. The OEB's future scrutiny of revenue shortfalls for the Project post-RSP will be

informed by the OEB's expectations at the time of Project approval concerning the provision of further subsidies by all Enbridge Gas consumers.

3.4 Environmental Matters

Enbridge Gas retained WSP Canada Inc. to complete an Environmental Report. The Environmental Report and the consultation process were conducted in accordance with the OEB's *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Environmental Guidelines). The Environmental Report assessed the existing bio-physical and socio-economic environment in the study area, the alternative routes, the preferred route, conducted public consultation, conducted impacts assessment and proposed mitigation measures to minimize the impacts.

Enbridge Gas stated that the Environmental Report was circulated to the Ontario Pipeline Coordinating Committee (OPCC), Indigenous communities, municipalities and conservation authorities and Enbridge Gas filed the comments received on the Environmental Report as part of its evidence.⁶⁹

Enbridge Gas stated it would prepare an Environmental Protection Plan (EPP) prior to construction of the Project. The EPP will incorporate the recommended mitigation measures identified in the Environmental Report and received in the consultation from agencies for the environmental issues associated with the Project.

Enbridge Gas stated that using the mitigation measures and monitoring and contingency plans found within the Environmental Report, EPP and additional mitigation measures provided by regulatory agencies through the permitting and approval process, construction of this Project will have negligible impacts on the environment.⁷⁰

Enbridge Gas stated that it has completed a Stage 1 Archaeological Assessment (AA) which was prepared in May 2023 and submitted to the Ministry of Citizenship and Multiculturalism (MCM) on June 28, 2023.

In its interrogatory responses, Enbridge Gas stated that "construction activities are anticipated to be confined to the municipal road Right-of-Way (RoW). Based on the results of the Stage 1 AA, areas that retain archaeological potential are adjacent to the Sandford Community and Quaker Hill cemeteries. Currently, construction activities are planned to be greater than 10m from the limits of both cemeteries, therefore, completion

⁶⁹ Application, Exhibit F, Tab 1, Schedule 1, p.4 and Attachment 2

⁷⁰ Application, Exhibit F, Tab 1, Schedule 1, p.4



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DECISION AND ORDER

EB-2023-0201

ENBRIDGE GAS INC.

**Application for Leave to Construct Eganville Community
Expansion Project**

BEFORE: Robert Dodds
Presiding Commissioner

Michael Janigan
Commissioner

David Sword
Commissioner

May 30, 2024

discounted cashflow analysis. Enbridge Gas added that the costs of reinforcement required for community expansion projects are separate, and not included within calculations of normalized system reinforcement costs.⁶⁰

In response to Pollution Probe's submission on the appropriate NGEF funding amount for the Project, Enbridge Gas stated that its evidence and interrogatory responses state that the Project is eligible to receive funding up to \$26.2 million, which Enbridge Gas noted is consistent with the submissions of OEB staff and Environmental Defence.

Findings

Project Costs

The OEB finds that the updated total estimated cost of the Project is reasonable and in accordance with the application of the regulatory framework established for the NGEF program. In particular, the capital requirements have been adjusted to accommodate new research and information obtained by Enbridge Gas since the original proposal in Phase 2 of the NGEF process. The provision of a 10% contingency embedded in estimated costs is consistent with that set for other NGEF projects. The OEB also accepts Enbridge Gas's submission that all Project reinforcement costs have been directly applied in the discounted cashflow analysis that has been submitted.

Economics

In addressing the issue of need, the OEB notes that the evidence inquiries and submissions in this proceeding have dealt extensively with the impact of the possible installation of electric heat pumps. This impact has centered upon potential cost savings associated with their adoption by the customers of the communities to be served by Enbridge Gas. Such take-up might occur either before or after the extension of the natural gas service to the communities. In turn, the effect of such take-up is addressed as a potential risk to project viability.

The OEB has itself recognized the potential customer energy savings associated with the installation of such heat pumps and their favourable impact on lowering the consumption of natural gas. The OEB notes that its Decision regarding Enbridge Gas's DSM program that made Enbridge Gas, in cooperation with the federal government's Greener Homes Initiative, the principal delivery agent for an incentivized installation of heat pumps.⁶¹

⁶⁰ Reply submission, pp. 14-15 and Exhibit I.ED.22

⁶¹ Decision and Order, EB-2021-0002, Enbridge Gas Inc. Application for Multi-Year Natural Gas Demand Side Management Plan (2022 to 2027), November 15, 2022, page 28

The approval of the leave to construct requested in this application does not restrict customers in these communities from obtaining heat pumps either before or after an extension of natural gas service to these communities. Nor does it remove Enbridge Gas's DSM program responsibilities in these communities.

The OEB notes Enbridge Gas's evidence supporting the economic viability of the Project is also supported by a positive response to its outreach and solicitation provided by the market survey results. The extrapolation of such results to the financial metrics of the proposed expansion is a key factor in that requisite economic assessment.

The OEB acknowledges that OEB staff noted the risk to the economic viability of the Project if the projected customer attachments do not occur and that Environmental Defence and Pollution Probe drew attention to the possible effects of DSM, fuel switching or the broader energy transition over the 40-year revenue horizon.

However, the OEB agrees with Enbridge Gas's assertion that that the decisions of individual customers, now and in the future, to connect and maintain natural gas service must take into consideration more than the current cost effectiveness of electric heat pumps and factor in other variables and uncertainties associated with the evolution of any energy transition that transpires. Additionally, the OEB notes that at the same time, any survey is unlikely to capture all aspects of the likely take-up and continuance of natural gas service with complete accuracy in a changing environment of new energy efficient modes and programs, government policies and prices.

The policy determination that chosen communities should receive NGEP-based financial assistance for the provision of natural gas service is a government prerogative supported by legislation. It provides the foundation for the OEB's finding of the NGEP program fulfills a need that has been so deemed to be in the public interest. The existence of potential changes in the delivery of energy and its impact on natural gas systems is well known to Enbridge Gas who must be prepared to be competitive to maintain its viability with customers.

The OEB, in approving Enbridge Gas's application of leave to construct, must ensure that the interests of all Enbridge Gas's customers are also protected. One pillar of that protection is the existence of the ten-year RSP in which Enbridge Gas is responsible for any shortfall in revenues to meet its revenue requirement. This provides some insulation against possible under achievement of its customer sign-up estimates or projected natural gas consumption.

In the first rebasing following the expiration of the RSP, the OEB will review the actual project costs and revenues and determine what amount should be recognized in rates. The subsidy or contribution to the expansion of service provided in O. Reg. 24/19 is

specific and limited and does not abrogate the general principles of utility cost allocation going forward.

All options will be available to the OEB in the rebasing following the conclusion of the RSP with respect to the appropriate rate treatment of potential capital cost overruns and/or lower than forecast customer attachments/volumes (and associated revenues). Enbridge Gas is not guaranteed total cost recovery if actual capital costs and revenues result in an actual PI below 1.0.

The OEB cannot bind a future panel determining that application to be made by Enbridge Gas post-RSP. However, the OEB notes that if Enbridge Gas's estimate of customers likely to take up natural gas service is correct, existing natural gas customers will have already contributed approximately \$35,700 per customer served by the Project to assist in the expansion of gas in this community. There is a clear and reasonable expectation that such customers will not be called upon to provide a further subsidy to compensate for post-RSP revenue shortfalls.

The OEB does not agree with Environmental Defence's proposition that any attribution of revenue shortfalls to the OEB after the expiration of the RSP will be constrained by the legal principles of energy regulation that allow recovery of investments that were prudent at the time they were made, judged without hindsight. The NGEF program addresses the provision of natural gas service to communities that would otherwise be uneconomic to serve.

Any OEB finding of prudence for a NGEF project proposal and its accordance with the public interest is entirely dependent on the framework of the NGEF and its implementation as set out in the legislation and the OEB decisions. This includes the acceptance of customer attachment and continuance of service projections by Enbridge Gas. The OEB's future scrutiny of revenue shortfalls for the Project post-RSP will be informed by the OEB's expectations at the time of Project approval concerning the provision of further subsidies by all Enbridge Gas consumers.

The OEB also notes that the NGEF funding amount of \$26.2 million included by Enbridge Gas in its economic analysis for the Project is consistent with the eligible funding amount for the Project set out in O. Reg. 24/19.

3.4 Environmental Matters

Enbridge Gas retained Stantec Consulting Ltd. to complete an Environmental Report. The Environmental Report and the consultation process were conducted in accordance with the OEB's *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Environmental Guidelines). The



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DECISION AND ORDER

EB-2023-0261

ENBRIDGE GAS INC.

**Application for Leave to Construct Neustadt Community
Expansion Project**

BEFORE: Robert Dodds
Presiding Commissioner

Michael Janigan
Commissioner

David Sword
Commissioner

May 23, 2024

required for community expansion projects are separate, and not included within calculations of normalized system reinforcement costs.⁵⁶

Findings

Project Costs

The OEB finds that the updated total estimated cost of the Project is reasonable and in accordance with the application of the regulatory framework established for the NGEP program. In particular, the capital requirements have been adjusted to accommodate new research and information obtained by Enbridge Gas since the original proposal in Phase 2 of the NGEP process. The provision of a 10% contingency embedded in estimated costs is consistent with that set for other NGEP projects. The OEB also accepts Enbridge Gas' submission that all Project reinforcement costs have been directly applied in the discounted cashflow analysis that has been submitted.

Economics

In addressing the issue of need, the OEB notes that the evidence inquiries and submissions in this proceeding have dealt extensively with the impact of the possible installation of electric heat pumps. This impact has centered upon potential cost savings associated with their adoption by the customers of the communities to be served by Enbridge Gas. Such take-up might occur either before or after the extension of the natural gas service to the communities. In turn, the effect of such take-up is addressed as a potential risk to project viability.

The OEB has itself recognized the potential customer energy savings associated with the installation of such heat pumps and their favourable impact on lowering the consumption of natural gas. The OEB notes that its Decision regarding Enbridge Gas's DSM program that made Enbridge Gas, in cooperation with the federal government's Greener Homes Initiative, the principal delivery agent for an incentivized installation of heat pumps.⁵⁷

The approval of the leave to construct requested in this application does not restrict customers in these communities from obtaining heat pumps either before or after an extension of natural gas service to these communities. Nor does it remove Enbridge Gas's DSM program responsibilities in these communities.

⁵⁶ Reply submission, p. 13 and IRR Exhibit I.ED.22 part c)

⁵⁷ Decision and Order, EB-2021-0002, Enbridge Gas Inc. Application for Multi-Year Natural Gas Demand Side Management Plan (2022 to 2027), November 15, 2022, page 28

Enbridge Gas's evidence supporting the economic viability of the Project is supported by a positive response to its outreach and solicitation provided by the market survey results. The extrapolation of such results to the financial metrics of the proposed expansion is a key factor in that requisite economic assessment.

OEB staff has noted the risk to the economic viability of the Project if the projected customer attachments do not occur. Environmental Defence and Pollution Probe drew attention to the possible effects of DSM, fuel switching or the broader energy transition over the 40-year revenue horizon.

The OEB agrees with Enbridge Gas's assertion that that the decisions of individual customers, now and in the future, to connect and maintain natural gas service must take into consideration more than the current cost effectiveness of electric heat pumps and factor in other variables and uncertainties associated with the evolution of any energy transition that transpires. At the same time, any survey is unlikely to capture all aspects of the likely take-up and continuance of natural gas service with complete accuracy in a changing environment of new energy efficient modes and programs, government policies and prices.

The policy determination that chosen communities should receive NGEF-based financial assistance for the provision of natural gas service is a government prerogative supported by legislation. It provides the foundation for the OEB's finding of the NGEF program fulfills a need that has been so deemed to be in the public interest. The existence of potential changes in the delivery of energy and its impact on natural gas systems is well known to Enbridge Gas who must be prepared to be competitive to maintain its viability with customers.

The OEB, in approving Enbridge Gas's application of leave to construct, must ensure that the interests of all Enbridge Gas's customers are also protected. One pillar of that protection is the existence of the ten-year RSP in which Enbridge Gas is responsible for any shortfall in revenues to meet its revenue requirement. This provides some insulation against possible under achievement of its customer sign-up estimates or projected natural gas consumption.

In the first rebasing following the expiration of the RSP, the OEB will review the actual project costs and revenues and determine what amount should be recognized in rates. The subsidy or contribution to the expansion of service provided in O. Reg. 24/19 is specific and limited and does not abrogate the general principles of utility cost allocation going forward. All options will be available to the OEB in the rebasing following the conclusion of the RSP with respect to the appropriate rate treatment of potential capital cost overruns and/or lower than forecast customer attachments/volumes (and

associated revenues). Enbridge Gas is not guaranteed total cost recovery if actual capital costs and revenues result in an actual PI below 1.0.

The OEB cannot bind a future panel determining that application to be made by Enbridge Gas post-RSP. However, the OEB notes that if Enbridge Gas's estimate of customers likely to take up natural gas service is correct, existing natural gas customers will have already contributed approximately \$22,300 per customer served by the Project to assist in the expansion of gas in this community. There is a clear and reasonable expectation that such customers will not be called upon to provide a further subsidy to compensate for post-RSP revenue shortfalls.

The OEB does not agree with Environmental Defence's proposition that any attribution of revenue shortfalls to the OEB after the expiration of the RSP will be constrained by the legal principles of energy regulation that allow recovery of investments that were prudent at the time they were made, judged without hindsight. The NGEP program addresses the provision of natural gas service to communities that would otherwise be uneconomic to serve. Any OEB finding of prudence for a NGEP project proposal and its accordance with the public interest is entirely dependent on the framework of the NGEP and its implementation as set out in the legislation and the OEB decisions. This includes the acceptance of customer attachment and continuance of service projections by Enbridge Gas. The OEB's future scrutiny of revenue shortfalls for the Project post-RSP will be informed by the OEB's expectations at the time of Project approval concerning the provision of further subsidies by all Enbridge Gas consumers.

3.4 Environmental Matters

Enbridge Gas retained Stantec Consulting Ltd. to complete an Environmental Report. The Environmental Report and the consultation process were conducted in accordance with the OEB's *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Environmental Guidelines). The Environmental Report assessed the existing bio-physical and socio-economic environment in the study area, the alternative routes, the preferred route, conducted public consultation, conducted impacts assessment and proposed mitigation measures to minimize the impacts.

Enbridge Gas stated that the Environmental Report was circulated to the Ontario Pipeline Coordinating Committee (OPCC), Indigenous communities, municipalities and conservation authorities and Enbridge Gas filed the comments received on the



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BY MAIL

August 13, 2024

Patricia Squires
Manager, Regulatory Applications, Leave to Construct
Enbridge Gas Inc.
500 Consumers Road
North York, ON
M2J 1P8
patricia.squires@enbridge.com

Dear Patricia Squires:

**Re: Enbridge Gas Inc.
Boblo Island Community Expansion Project – Application for Exemption
from Leave-to-Construct (LTC) Requirement
Ontario Energy Board File Number: EB-2024-0249**

This letter acknowledges receipt of Enbridge Gas Inc.'s LTC Exemption Application for Boblo Island Community Expansion Project dated August 9, 2024. The Ontario Energy Board (OEB) has assigned File Number EB-2024-0249 to this matter. Please refer to this file number in all future correspondence to the OEB regarding this matter. All information related to this matter must be filed with the Registrar at registrar@oeb.ca.

The OEB is currently conducting a preliminary review of your application. Upon completion of this review the OEB will communicate the next steps in the process.

Please direct any questions relating to this application to the Case Manager, Zora Crnojacki, at 416-440-8104 or Zora.Crnjacki@oeb.ca.

Yours truly,

John Pickernell
Manager, Applications Administration

c: EGIRegulatoryProceedings@enbridge.com
Guri Pannu, Senior Legal Counsel, guri.pannu@enbridge.com



BY EMAIL

December 10, 2024

Grand Chief Abram Benedict
Mohawk Council of Akwesasne
101 Tewesateni Rd
Akwesasne, ON K6H 0G5
grand.chief@akwesasne.ca

NOTICE OF A HEARING

Dear Grand Chief Abram Benedict:

**Re: Enbridge Gas Inc.
Glendale Community Expansion Project
Ontario Energy Board File Number: EB-2024-0325**

Mohawk Council of Akwesasne has been identified by the Ministry of Energy and Electrification as an Indigenous community whose Aboriginal or treaty rights¹ may be adversely impacted by a natural gas pipeline project proposed by Enbridge Gas Inc. (Enbridge Gas) to serve the community of Glendale Subdivision in the Township of South Glengarry in the United Counties of Stormont, Dundas and Glengarry (Project). Through this notice, you are being provided with information about how Mohawk Council of Akwesasne can participate in the Ontario Energy Board's (OEB) hearing on Enbridge Gas's application regarding the Project.

Enbridge Gas's Application

The Project involves the construction of approximately 5.6 km of natural gas distribution pipelines and ancillary facilities intended to connect residential homes to natural gas service. A map of the Project area is provided in Attachment A.

The Project was approved to receive funding assistance under Phase 2 of the Government of Ontario's [Natural Gas Expansion Program](#). On November 7, 2024, Enbridge Gas filed an application for an order exempting the Project from the requirement to obtain leave to construct.²

¹ As protected under Section 35 of Canada's *Constitution Act, 1982*

² The application was filed under section 95(2) of the *Ontario Energy Board Act, 1998* (OEB Act)

The Issue in this Hearing

The issue that the OEB will consider in this hearing is whether the Crown's duty to consult has been adequately discharged in respect of the Project.³

The OEB must grant the exemption requested by Enbridge Gas if it determines that the Crown's duty to consult has been adequately discharged in respect of the Project.⁴ In that case, no further approval will be needed from the OEB to allow Enbridge Gas to build the Project.

OEB Hearing Types

There are three types of OEB hearings: oral, electronic and written.⁵ Enbridge Gas has asked for a written hearing. If you think a different hearing type is needed, you can write to us to explain why (please see deadline below). No matter the format of the hearing, there will be an opportunity for questions and arguments from participants that have registered to actively participate in the proceeding (referred to as Intervenors).

How to Participate and Important Dates

You have the right to receive information about Enbridge Gas's application and to participate in the OEB's process. Go to the OEB's [Advanced Regulatory Document Search](#) and use Case Number **EB-2024-0325** to review the application. This link will also allow you to see other documents that are filed by Enbridge Gas or by Intervenors as well as documents that are issued by the OEB during the hearing.

In terms of participation, you have several options:

1. You can file a letter to notify the OEB of any concerns you may have that the Crown's duty to consult has not been adequately discharged in respect of the Project (Notification Letter). You can express your preference for the type of hearing in your Notification Letter. Your Notification Letter must be filed on or before **January 31, 2025**. Otherwise, the hearing will move forward without you, and you will not receive any further notice of the proceeding. To file a Notification Letter, please email Registrar@oeb.ca and reference Case Number **EB-2024-0325**.
2. If you want to actively participate in the hearing as an Intervenor, please say so in your Notification Letter. Mohawk Council of Akwesasne will be accepted as an Intervenor and will be eligible to recover costs in respect of its participation in the proceeding on the issue that is within scope of the proceeding. For more

³ Pursuant to section 95(2) of the OEB Act

⁴ As provided for in section 3.0.1 of [Ontario Regulation 328/03](#)

⁵ An oral hearing is one that is conducted in person. An electronic hearing is conducted virtually. A hearing that includes a combination of oral (in-person) and electronic (virtual) formats is referred to as a hybrid hearing.

information on the role of an Intervenor, please visit the OEB's [Intervenor Information](#) webpage.

3. If you choose not to become an Intervenor, you can still:
 - a. File a Letter of Comment that expresses your views on the application. To file a Letter of Comment, please email Registrar@oeb.ca and reference Case Number **EB-2024-0325**.
 - b. Follow the proceeding as a Monitor. Monitors received by email all documents issued by the OEB in respect of the proceeding. To register as a Monitor, please email Registrar@oeb.ca and reference Case Number **EB-2024-0325**.

If you file a Notification Letter or a Letter of Comment, your name and the content of your letter will be put on the public record and the OEB website. If you indicate that Mohawk Council of Akwesasne intends to actively participate in the hearing as an Intervenor, then all the information you file will be on the public record and the OEB website.

For more information on the role of the OEB in relation to the Crown's duty to consult, please visit the OEB's [Consultation with Indigenous Peoples](#) webpage.

If you have any questions relating to this Notice or how to participate in the OEB's hearing, please contact the OEB's Case Manager, Judith Fernandes, at 416-440-7638 judith.fernandes@oeb.ca.

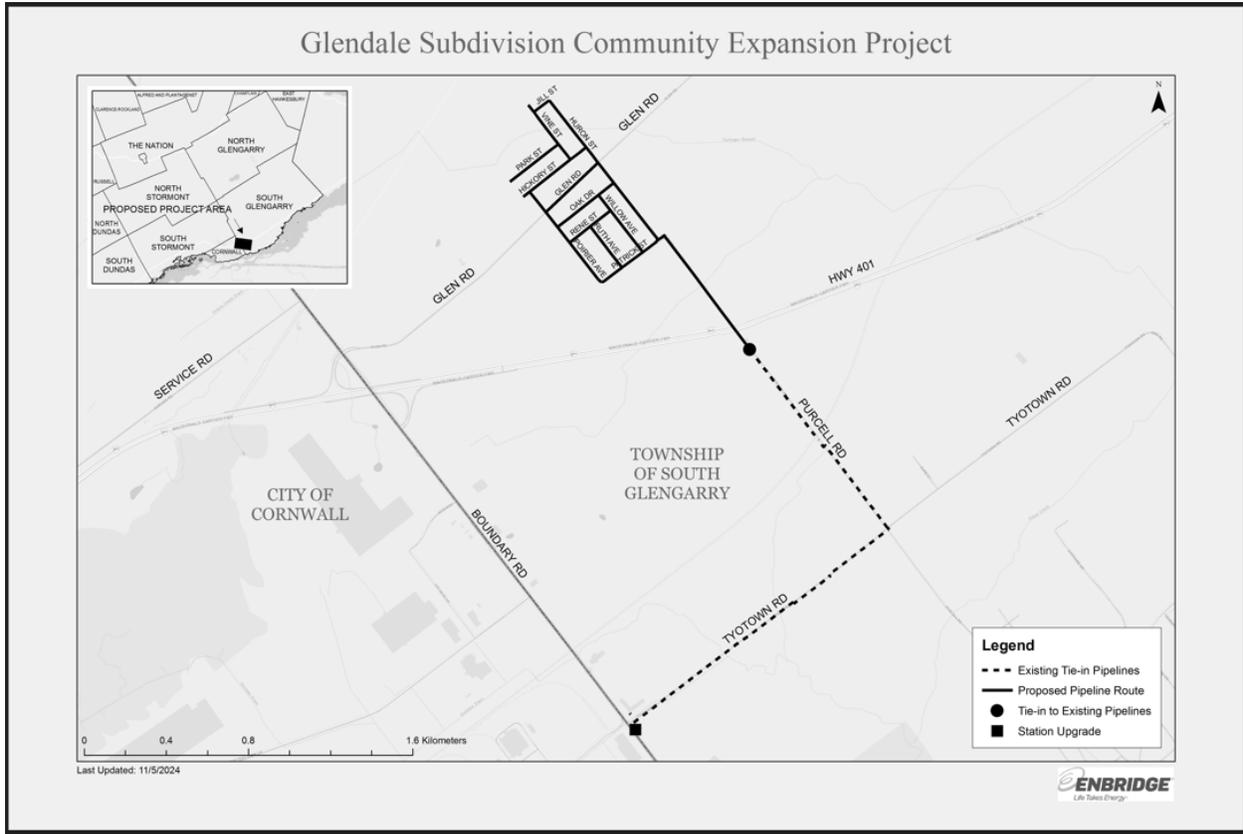
Yours truly,

Nancy Marconi
Registrar

Email: registrar@oeb.ca
Tel: 1-888-632-6273 (Toll-free)

c: EGIRegulatoryProceedings@enbridge.com
info@akwesasne.ca

Attachment A: Project Map



ENBRIDGE GAS INC.

Answer to Question from
Ontario Energy Board (OEB)

Reference:

Technical Conference – Transcript, p.17 & 26
Exhibit JT 1.2
Response to Interrogatory IESO-2
Exhibit D, Tab 1, Schedule 1, pp.24-26

Preamble:

N/A

Question(s):

- a) How many interval meters does Enbridge Gas have installed across its system?
- b) Provide the estimated cost for installing a residential interval meter.
- c) For the addresses that have interval meters, how many have installed cold climate air source heat pumps (ccASHPs) as part of programs administered by Enbridge Gas including Home Efficiency Rebate Plus (HER+)? Please divide this number into installations inside and outside the Southern Lake Huron (SLH) Pilot area.

Response:

Enbridge Gas interprets “interval meters” as Encoder Receiver Transmitter (“ERT”) technology, which is technology that can enable the Company to collect hourly natural gas usage data from customer meters. This hourly data can be used to quantify the impacts of IRPAs on natural gas system peak period flows/demand.¹

Regarding ERTs, it is important to note the following:

- Not all ERTs have the ability to gather hourly data. For ERTs that can gather hourly data, the ERTs must be configured to gather hourly data.
- The hourly data needs to be collected from the ERTs by Enbridge Gas. This generally occurs by driving through the areas where the ERTs are located, in close proximity to the ERTs, to collect the data.

¹ Exhibit C, Tab 1, Schedule 2, p. 8.

Regarding the proposed Southern Lake Huron (“SLH”) Pilot Project area,² most customers have ERTs installed.³ Furthermore, Enbridge Gas understands that the majority of the ERTs installed in the SLH Pilot Project area have the ability to gather hourly data. This makes the SLH Pilot Project area an ideal area to test demand-side IRPAs, including collecting the hourly data from the meters.

- a) There are approximately 193,400 meters with ERTs installed across Enbridge Gas’s service area. However, Enbridge Gas does not have information regarding how many of these ERTs have the ability to gather hourly data. Furthermore, these ERTs are installed across a wide geographic area which can create challenges when collecting the hourly data from the meters.
- b) The estimated cost for installing a residential ERT is \$400 (inclusive of materials and labour).
- c) For the ERTs noted in part a) above, approximately 3,580 have installed electric ccASHPs through Enbridge Gas programs, of which approximately 320 are within the SLH Pilot Project area.

² Exhibit A, Tab 2, Schedule 1, Attachment 1.

³ Exhibit JT1.2.



ONTARIO ENERGY BOARD

FILE NO.: EB-2024-0200

Enbridge Gas Inc.

VOLUME: Technical Conference

DATE: October 31, 2024

1 interrogatory response you seeking to clarify that may
2 assist. And also I am not sure if you can indicate why you
3 think that is relevant. It doesn't strike me as being
4 relevant to matters at issue in the application.

5 MR. BROPHY: Sure. I just wanted to give a heads up
6 before we are asked if there was questions in relation to
7 the Integral matters that we could provide today, or in the
8 Enbridge panel, then to do that and, to the extent that
9 they can't do that, then we take the additional questions
10 to Integral. So, this is in relation to those
11 interrogatories.

12 MR. STERNBERG: I am not sure how that is -- off the
13 top of my head how that is relevant to the Integral
14 analysis and report. But if you think it is perhaps you
15 could ask that of Integral when you ask your questions of
16 them.

17 MR. BROPHY: Okay. So, this is an Enbridge policy. I
18 guess Enbridge is the one that would decide. My
19 understanding is that Enbridge was going to propose to
20 remove the cutoff at main charge, but in the 2024 rebasing
21 application, but then I am not sure if it actually did.
22 So, if the panel knows then maybe they can just clarify?

23 MR. KITCHEN: It is Mark Kitchen. We do not charge
24 for cutoff at main.

25 MR. BROPHY: Okay. And that was the recent change
26 then in the most recent rebasing application?

27 MR. KITCHEN: Yes, it was part of harmonizing those
28 types of costs or those types of charges. EGD did have a

1 cut off at main charge but legacy Union did not and we
2 moved to go to no charge.

3 MR. BROPHY: Okay. No, that is terrific. And just a
4 final question, which is I think fairly easy. So, anybody
5 can answer but I think Aron Murdoch probably would be the
6 one just to give a head up. So, at the beginning when the
7 panel was introduced in relation to why you are here and
8 speaking to the evidence, I think you indicated that your
9 role is technical manager integrity regulatory strategy; is
10 that correct?

11 MR. MURDOCH: Aron Murdoch, yes, that is correct.

12 MR. BROPHY: Okay. And so, does that -- is that a
13 regulatory role or an integrity role? What is the focus of
14 it?

15 MR. MURDOCH: Aron Murdoch, this is an integrity role.

16 MR. BROPHY: Integrity, okay. So, it is in the
17 integrity group looking at influencing regulatory issues
18 related to integrity; does that sound right?

19 MR. MURDOCH: Aron Murdoch, I am the technical manager
20 within the regulatory strategy component of our integrity
21 department.

22 MR. BROPHY: Okay. And regulatory strategy then would
23 be impacting regulatory issues using strategy I am
24 assuming; right?

25 MR. MURDOCH: Aron Murdoch, I would be working on
26 files such as the St. Laurent project that require
27 regulatory application.

28 MR. BROPHY: Okay. Okay. Terrific. Thank you very

ENBRIDGE GAS INC.

Answer to Undertaking from
Pollution Probe (PP)

Undertaking:

Tr: 59

To describe the treatment of the capital when a customer suspends or removes their account; is it removed, or does it remain?

Response:

When a customer suspends or removes their account, the capital remains. The costs of fixed assets remain unless assets are physically abandoned.



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FortisBC ups gas prices by 20 per cent: shift to 'renewable' gas partly to blame

By Marc Fawcett-Atkinson | News | December 16th 2024



Heat pumps typically are a more affordable way to heat homes than gas, even before FortisBC's recent announcement it will hike its rates by 17.5 per cent on January 1, 2024. Photo by Jimmy Jeong/National Observer

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British Columbia's gas utility is hiking its prices nearly 20 per cent, in part to help cover the cost of a climate plan that will do little to reduce the province's harmful emissions or use of fossil-based natural gas. The price hike, which will see the average Vancouver and Lower Mainland consumer pay \$171 more annually, comes amid growing awareness of the [high cost of gas furnaces and boilers relative to electrical alternatives like heat pumps](#).

The announcement – quietly [posted](#) on the company website last week – comes after the utility and industry groups linked to Canada's gas industry spent years attacking municipal efforts to restrict natural gas heating in new buildings. Among the industry's main arguments are that gas is affordable, and that the utility's plan to use so-called "low-carbon" and "renewable" natural gas will reduce emissions.

"We constantly hear misleading messaging from the fossil fuel industry that methane gas is cheaper than electricity for heating, and this significant rate hike proves them wrong," said Melissa Lem, president of the Canadian Association of Physicians for the Environment. "Households that are stuck on gas now and in the future will suffer all the harms of rising utility bills and air pollution indoors and outdoors."

Renewable natural gas (RNG) is methane gas made from decomposing organic waste or manure. Because B.C. does not produce enough waste to meet demand, FortisBC [relies heavily](#) on buying sustainability credits from RNG facilities from as far away as Ontario and the U.S. to offset the climate impacts of the fossil-based gas actually coursing through B.C. buildings.

Low-carbon gas is a catch-all phrase for several fuels, like blue hydrogen, that emit less carbon when burned than natural gas, but are largely produced using fossil fuels.

Doubling the amount of RNG in its gas supply (to two per cent) was cited as one of the reasons behind the rate hike by FortisBC in its public announcement. But in a statement emailed to *Canada's National Observer* Friday, the company said that the "increase of the designated RNG blend from one to two per cent resulted only in a small portion of the total increase noted above but it was not the main factor."

The company "operates as efficiently as possible to help keep rates as low as reasonably possible for our customers. However, rate increases result from FortisBC needing to make necessary system improvements and long-term investments so that customers have the energy they need, when they need it. Rates cover the cost of making important and necessary investments in the maintenance and upgrading of the system to meet our customers' growing energy needs," the statement said.

A December [report](#) about FortisBC's renewable energy plan that was commissioned by the B.C. Utilities Commission (BCUC) found that by 2030, the average household bill will increase by about \$370, or about 27 per cent more than if the utility only used fossil-based gas. By 2050, those extra costs will have ballooned to \$1,060.



increase the price of fuel, alongside upgrades to the gas delivery system and the maintenance costs for the utility's gas network.

Yet based on FortisBC's public portrayal of the fuel, British Columbians could be forgiven for thinking otherwise.

In July, the company announced that all its fuel would contain one percent RNG and emphasized that costs to consumers wouldn't change. The announcement came with a disclaimer that consumers "could see a change [their] bill in the future," but no details about when that might happen – or by how much prices might increase.

In March, a coalition of environmental groups sued FortisBC, alleging [false representation](#) over its efforts to market gas as cheaper and more sustainable than electricity. Court [documents](#) claim the company made misleading statements about the costs and environmental impact of their fuel in advertisements, on social media and in traditional media, and in public presentations.

The company has aggressively pushed back on municipal efforts to restrict natural gas heating in new buildings and questions about the feasibility of its RNG plan. For instance just last month, Vancouver city council narrowly avoided reversing the city's gas ban after mayor Ken Sim and allied councillor Brian Montague tried to reverse the rule. That effort came after they met with a FortisBC lobbyist.

National industry groups have also pushed shady advertising campaigns to promote natural gas as "affordable," for instance through the Voice for Energy website. Those efforts are subject to a greenwashing [investigation](#) by the Competition Bureau, instigated by Lem and five other healthcare professionals.

"The official investigation is ongoing," she said. "This announcement provides an even stronger rationale for the Competition Bureau to rule in our favour."

