#### **ONTARIO ENERGY BOARD**

#### EB-2024-0111

**IN THE MATTER OF** the *Ontario Energy Board Act*, 1998, S. O. 1998, c. 15, Schedule B;

**AND IN THE MATTER OF** Phase 2 of an application by Enbridge Gas Inc. to change its natural gas rates and other charges beginning January 1, 2024

## Submissions of Environmental Defence and the Green Energy Coalition

# **Enbridge Rebasing Phase II – Renewable Natural Gas**

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## Overview

Enbridge is proposing a new renewable natural gas ("RNG") program that will procure RNG up to 2% of the gas supply, subject to limits on customer bill impacts. The RNG will be purchased on long-term contracts and offered for sale to large volume customers. The portion that is not sold to large volume customers will remain as part of the supply of gas for general service customers.

Environmental Defence and the Green Energy Coalition ("GEC") submit that the RNG program will benefit customers, but only if restrictions are ordered by the OEB to avoid "greenwashing" and to require that the actual carbon reduction benefits are adequately accounted for in Enbridge's procurement criteria.

The main benefit of the program is that it will secure access to RNG for Ontario customers via long-term contracts before other jurisdictions corner all the most cost-effective RNG supply. The program can leverage Enbridge's buying power to assist its customers. RNG can, at most, play a small role in the energy transition because feedstocks are very limited (and the cost is high). But that role is important in relation to hard-to-electrify sectors. By securing access to RNG, the program could help to ensure the gas system can viably play that role in the future.

However, there is a major risk that an RNG program will distract and divert resources from energy efficiency and beneficial electrification, which are much more important tools to help gas customers adapt to the energy transition because they are far more cost-effective and can result in full decarbonization. This risk can be mitigated by requirements relating to greenwashing and appropriate carbon accounting.

In particular, Environmental Defence and GEC ask that the OEB require that any promotional material referencing RNG clearly indicate the percent of carbon emissions reductions achieved via RNG in the gas supply. This is important for the OEB's statutory mandate to "inform customers."<sup>1</sup> Without this information, RNG marketing will leave the incorrect impression that the gas supply is much cleaner than it actually is, and few customers will know that RNG only eliminates a tiny fraction of the carbon emissions from methane gas combustion in the province.

Environmental Defence and GEC also ask the OEB to require that the carbon intensity of different RNG sources be properly accounted for in Enbridge's procurement criteria. This can be done by mandating purchases based on the cost per tonne of avoided carbon emissions (\$/CO2e). Alternatively, the OEB should require that the portfolio at least achieve carbon neutrality on a lifecycle basis. This would represent a middle ground between purchasing based on \$/m3 and \$/CO2e, and would result in a diverse mix of RNG sources with different carbon intensities.

If these two conditions are not included, Environmental Defence and GEC ask that the OEB decline to approve this program. The scales will only tip in favour of overall customer benefits with appropriate carbon accounting and requirements to prevent greenwashing.

<sup>&</sup>lt;sup>1</sup> Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Sched. B, s. 2(2) (link).

## Pros and cons of an RNG program

There are important pros and cons to the proposed RNG program. As the program is proposed, the pros do not outweigh the cons. As proposed, the risk is too high that the program will distract from more important and cost-effective measures to prepare gas customers for the energy transition. However, with the conditions we propose, that risk can be sufficiently mitigated, and the program can be justified

#### Pros: secure access and leverage buying power to help customers

#### Secure access to RNG supply

An RNG program can secure access to RNG supply for Ontario gas customers. Enbridge correctly notes in its submissions and evidence that RNG supply is being purchased on long-term contracts by jurisdictions across North America, including RNG supply in Ontario. If Enbridge does not start an expanded RNG program now, Ontario customers may continue to lose access to the best and least expensive RNG sources. There is a very wide range of prices for different RNG sources depending on factors such as the type of RNG, the distance from a pipeline, and site-specific considerations.<sup>2</sup> This results in a relatively steep cost curve. The sooner Ontario customers can access long-term contracts, the more likely that they will secure access to projects on the less expensive side of that cost curve.

Access to RNG is particularly important in light of the decarbonization timelines facing the gas system. The year 2050 is often considered as the date by which we must achieve net zero carbon emissions to avoid catastrophic climate change impacts, which is reflected in federal climate targets. That requires steady and substantial declines in carbon emissions over the next 25 years. These timelines mean that RNG supply that is cornered by other jurisdictions on long-term contracts may not become available to Ontario customers in the relevant timeframes, especially if those contracts have renewal terms or include the right of first refusal.

Access to RNG is important because RNG is likely to play an important niche role in decarbonization, even though that will be a small role. For the vast majority of customers, who use gas primarily for building heat, RNG is not a cost-effective decarbonization method.<sup>3</sup> But RNG could play an important role to help decarbonize the hard-to-electrify sectors, such as high-heat industrial processes.

Securing access to RNG could help maintain a financially viable gas sector. Most building heat will likely be electrified.<sup>4</sup> That will leave the gas system to serve hard-to-electrify sectors. If Ontario has lost access to the best and most cost-effective supply of RNG, the gas system will be unable even to play that niche role serving the hardest-to-electrify customers. Losing access to

<sup>&</sup>lt;sup>2</sup> Exhibit I.4.2-GEC-22 (link, PDF p. 1420).

<sup>&</sup>lt;sup>3</sup> Exhibit J3.6 (<u>link</u>, PDF p. 6).

<sup>&</sup>lt;sup>4</sup> Canadian Climate Institute, *Heat Exchange*, p. 10 & 17 (<u>link</u>, PDF p. 12 & 14); *Ontario's Clean Energy Opportunity: Report Of The Electrification And Energy Transition Panel*, December 2023, p. 72 (<u>link</u>); EB-2022-0200, Evidence of the Energy Futures Group in Ontario Energy Board File, (<u>link</u>).; Exhibit J3.6 (<u>link</u>, PDF p. 6).

the best RNG sources could mean that hard-to-electrify customers leave the province or that they find alternatives that do not involve the gas system.

#### Help customers and leverage buying power

The proposed program could help customers achieve carbon reduction goals by leveraging Enbridge's large buying power. Many industrial customers are unwilling or unable to enter into long-term gas contracts because of the nature of their business, the risk, or the financial implications of long-term obligations. This means that many of those customers are restricted to the secondary market and are unable to access some less expensive sources that are only available on long-term contracts. Enbridge can use its buying power and its position as the regulated utility to the benefit of these customers.

#### Cons: a harmful distraction from far more important and far less expensive options

The proposed RNG program could distract and take resources away from more important, more feasible, and less expensive options to assist gas customers adapt to the energy transition, like energy efficiency and beneficial electrification. For instance, RNG could absorb funds that are better spent on expanded demand side management ("DSM") programming. RNG can divert time and attention from DSM to the extent that the RNG program provides a false sense of progress despite the very low GHG emissions reductions can be achieved due to constrained feedstocks. This could reduce the impetus for customers to improve energy efficiency.

Energy efficiency and electrification are far more cost-effective methods of decarbonizing most of Enbridge's customers. Enbridge's most recently audited DSM programming achieved carbon reductions at a *negative* cost of \$20 per tonne of CO2e. For each tonne of avoided carbon emissions, customers *saved* \$20. This includes all costs, including the customer and utility spending on the energy efficiency measures. In contrast, RNG from landfill gas (the cheapest type of RNG on a \$/m3 basis) achieves carbon reductions at a cost of approximately \$258 per tonne of avoided CO2e. This comparison is shown in the figure below.<sup>5</sup>



<sup>&</sup>lt;sup>5</sup> Exhibit J3.5 (<u>link</u>, PDF p. 3).

Energy efficiency and electrification are also far more feasible decarbonization methods compared to RNG. The potential RNG sources in Ontario would only be able to supply less than 5% of Ontario's fossil methane gas volumes due to restricted feedstocks.<sup>6</sup> Energy efficiency can achieve far higher reductions.<sup>7</sup> Electrification can achieve complete decarbonization.

Energy efficiency and electrification are also far more important as they are the most feasible and cost-effective decarbonization method for the majority of Enbridge's customers (general service customers mainly use gas for heat and provide 87% of Enbridge's distribution revenue).<sup>8</sup> Heating is roughly five times cheaper with heat pumps compared to RNG.<sup>9</sup> Energy efficiency and electrification are also more important for decarbonization at a society-wide level because the most cost-effective pathway to decarbonization involves almost complete electrification.<sup>10</sup>

Although RNG has an important niche role to play in the energy transition, if an RNG program distracts from energy efficiency and beneficial electrification, or takes resources away from those measures, the downsides of the RNG program will outweigh the potential positive aspects. The risks of this are heightened if customers are misled to believe that their gas is cleaner than it actually is and if carbon is not accounted for accurately (e.g. via an incorrect assumption that all RNG is carbon neutral). Measures to avoid those outcomes are discussed below.

#### **Design considerations and conditions**

#### Avoid greenwashing via mandatory customer information

Environmental Defence and GEC ask that the OEB to require that any promotional material referencing RNG clearly indicate the percent of carbon emissions reductions achieved via RNG in the gas supply. This is important to ensure that customers are not misled and to minimize the possibility that RNG messaging causes customers to believe there is a diminished need to reduce carbon emissions from their gas consumption.

At most, this program will reduce the carbon emissions from gas combustion in Ontario by 2%. This leaves the remaining 98% of those emissions to be addressed by other means. If customers are not provided with this information, they will likely be misled into falsely believing that the gas they are consuming is cleaner than it actually is.

The OEB should include this requirement as a means to fulfill its statutory mandate to "inform customers" as set out in s. 2 of the *OEB Act*. <sup>11</sup> Although the OEB typically focuses more on its

<sup>&</sup>lt;sup>6</sup> Hearing Transcript Vol. 2, p. 100, lns. 1-5 (<u>link</u>); Canadian Biogas Association study, p. 71 (<u>link</u>, Ex. K2.2, PDF p. 184); cited by Guidehouse in Exhibit I.1.10-ED-35 (<u>link</u>, Ex. K2.2, PDF p. 99); IESO Pathways to Decarbonization Study, Appendix B, p. 27 (<u>link</u>, Ex. K2.2, PDF p. 221); IESO Correspondence (<u>link</u>, Ex. K2.2, PDF p. 221); Hearing Transcript Vol. 2, p. 106, lns. 13-24 (<u>link</u>); Hearing Transcript Vol. 5, p. 176, ln. 3 to p. 177, ln. 8 (<u>link</u>).

<sup>&</sup>lt;sup>7</sup> 2024 Natural Gas Achievable Potential Study (<u>link</u>).

<sup>&</sup>lt;sup>8</sup> Hearing Transcript Vol. 3, p. 12, lns. 15-25 (<u>link</u>).

<sup>&</sup>lt;sup>9</sup> Exhibit J3.6 (<u>link</u>, PDF p. 6-7).

 <sup>&</sup>lt;sup>10</sup> Canadian Climate Institute, *Heat Exchange*, p. 10 & 17 (<u>link</u>, PDF p. 12 & 14); *Ontario's Clean Energy Opportunity: Report Of The Electrification And Energy Transition Panel*, December 2023, p. 72 (<u>link</u>); EB-2022-0200, Evidence of the Energy Futures Group in Ontario Energy Board File, (<u>link</u>).; Exhibit J3.6 (<u>link</u>, PDF p. 6).
<sup>11</sup> Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Sched. B, s. 2(2) (<u>link</u>).

mandate to protect customers with respect to prices, it also has an important obligation to help inform customers. The OEB should include the requested requirement simply to ensure that customers are informed about the gas they consume.

This requirement is also important because past marketing has been misleading about the actual climate impacts of gas. Various marketing materials have used misleading wording relating to heating by methane gas, including "lower carbon" and "clean energy." Four examples are included below. This marketing leaves the general impression that methane gas can be accurately described with those terms and that heating with gas is environmentally conscious, which is false. Methane gas is a potent greenhouse gas that pollutes the environment and causes climate change when it is burned and when it leaks into the atmosphere. Combustion of methane gas generates roughly one-third of Ontario's carbon emissions.<sup>12</sup> It is not clean.



This requirement is also important because we asked Enbridge to agree to include the percent of carbon reductions in its marketing materials and it declined. The only way to achieve this is via an order of the board.

It is important to many customers that their home heating be as clean as possible. This contributes to customers seeking to make their homes more energy efficient and adopting beneficial electrification (e.g. heat pumps). The RNG program risks reducing this motivating factor if customers do not understand how small of a contribution RNG makes to reducing the carbon footprint of heating a home with gas. It is essential that Enbridge provide this information to customers and that it does so whenever it promotes RNG.

#### Appropriately account for carbon intensity

Environmental Defence and GEC ask the OEB to require that the relative carbon intensities of RNG be properly accounted for in Enbridge's procurement criteria. This is important because some RNG sources are far better than others. The figure below shows the wide differences in the carbon reductions from different RNG sources.<sup>17</sup> For example, RNG from manure achieves roughly seven times the emissions reductions as landfill gas.

<sup>&</sup>lt;sup>12</sup> EB-2022-0200, Exhibit 1, Tab 10, Schedule 3, Page 2 (link, PDF p. 1627).

<sup>&</sup>lt;sup>13</sup> EB-2024-0111, Exhibit 1, Tab 16, Schedule 1, Attachment 1, Page 4 (link, PDF p. 327).

<sup>&</sup>lt;sup>14</sup> Exhibit I.1.16-ED-18, Attachment 2, Page 18 (link, PDF p. 727).

<sup>&</sup>lt;sup>15</sup> Exhibit I.1.16-ED-16, Attachment 1, Page 7 (<u>link</u>, PDF p. 656).

<sup>&</sup>lt;sup>16</sup> Exhibit I.1.16-ED-18, Attachment 1, Page 19 (<u>link</u>, PDF p. 708).

<sup>&</sup>lt;sup>17</sup> Exhibit M1, p. 32 (<u>link</u>, PDF p. 32).



Renewable natural gas (RNG) production pathways

Different RNG sources have differing carbon impacts primarily because of the varying energy inputs into generating the RNG and because some RNG sources prevent uncombusted methane from being released into the atmosphere, which has a major climate impact. For instance, landfill gas only achieves approximately a 50% reduction in emissions whereas manure-based RNG achieves over 200% reduction (by avoiding the direct emission of uncombusted methane to the atmosphere).

Under Enbridge's proposal, those wide differences between RNG types will be largely ignored. Enbridge will consider carbon intensities and diversity of RNG types, but only as a secondary consideration after considering which RNG sources have the least cost on a volumetric basis. Because the cost per cubic meter differs widely between RNG types, Enbridge will likely procure almost only landfill gas, which is the least cost-effective from a carbon reduction basis (\$/CO2e) but is the cheapest volumetrically (\$/m3). Conversely, Enbridge will purchase very little, if any, manure-based RNG because it costs more on a volumetric basis. This is problematic that Enbridge's proposal will result in purchasing far more of the kind of RNG that is least costeffective from a carbon reduction perspective.



<sup>18</sup> Exhibit J3.5 (<u>link</u>, PDF p. 3).

The best criteria would require purchases based on the least expensive carbon emissions reductions (i.e. the lowest \$/CO2e). The only reason to purchase RNG over fossil methane gas is to reduce carbon emissions. The most cost effective RNG is the one that costs the least per tonne of avoided emissions.

However, if the OEB does not direct Enbridge to purchase RNG based on the cost per tonne of emissions reductions, the OEB should instead require that the portfolio at least achieve carbon neutrality (as a weighted average over all sources, calculated on a lifecycle basis). This would represent a middle ground position between purchasing based on cost per volume (\$/m3) and cost per avoided carbon emissions (\$/CO2e). This would likely result in Enbridge primarily purchasing landfill gas, which has the highest carbon intensity but the lowest volumetric cost, but also supplementing that with sources that achieve net negative emissions, such as manure-based gas. It would not be as cost-effective as focusing solely on \$/CO2e, but it would represent a compromise and result in the greatest diversity of supply between RNG types.

Enbridge will argue that it should treat all RNG as equal because the carbon pricing regime in Ontario does so. However, carbon regulation will evolve over time, and one cannot assume that all RNG will be treated equally forever. Presumably regulation will at some point recognise the scientific reality that different types of RNG have very different climate impacts. Enbridge will be entering into 20-year contracts and should consider the likelihood that future customers and future regulatory regimes will have a preference for RNG that achieves greater emissions reductions.

Although some customers may seek RNG that is the cheapest per cubic meter, other customers will prefer RNG that provides the greatest value in terms of actual carbon emissions reductions. This will likely be the case for customers seeking to meet corporate climate targets or achieve certain climate accreditation, which generally require accurate carbon accounting. Purchasing a portfolio that results in carbon neutrality on average is a middle ground between both of these customer goals.

Enbridge may argue that it should treat all RNG as carbon neutral because lifecycle accounting is inappropriate or too complicated. However, that argument is illogical. Without lifecycle accounting, RNG has no climate benefit vis-à-vis fossil methane gas. Fossil methane gas and RNG both result in the same emissions at the burner tip. RNG can only be considered to have a climate benefit if it is considered on a lifecycle basis. Treating all RNG as equal is a scientifically inaccurate method of lifecycle carbon accounting.

Purchasing RNG based on the price of avoided emissions will result in cheaper emissions reductions but also a higher volumetric price. However, customers remain protected because of the bill impact caps proposed by Enbridge. By mandating a portfolio that is at least carbon neutral, the OEB can balance the competing considerations and achieve an RNG portfolio that is much more diversified.

#### Prioritize developing new resources and local resources

Environmental Defence and GEC believe Enbridge should purchase virtually all of its RNG via long-term contracts that will underpin the development of new RNG sources and have a strong

preference for Ontario-based resources in its procurement criteria. This will maximize the availability of local RNG sources, which will maximize the benefits of the program by better preparing Ontario for the energy transition. Although Enbridge has said it will take these factors into consideration, a stronger commitment to prioritizing the development of new local sources would be in the interest of customers.

It is also important that Enbridge account for the cost of transmission pathways in its procurement criteria when considering out-of-province RNG sources in order to reflect true costs, both now and in the future.

#### **Implement the Indigenous framework**

Environmental Defence and GEC strongly support the proposed Indigenous Participation Framework. It is entirely appropriate that significant efforts be made to encourage participation by Indigenous communities in RNG projects. Some intervenors may argue that this is a worthy social goal, but one that is outside of the OEB's mandate. That is incorrect and short-sighted. Although the OEB is primarily concerned with rates and reliability, it also considers other public interest factors, such as equity and government policy. Both of those factors strongly support the Indigenous Participation Framework.

Enbridge's pipelines cross the traditional territory of many First Nations across the province. They sometimes bisect reserve land without actually providing gas service to the First Nation. Yet First Nations have received very little benefit from the gas system and are likely to bear the brunt of the climate impact, especially in northern First Nations where the temperature change from climate change is expected to be comparatively much higher than in the south, which is expected to destroy important infrastructure like winter roads. It is fair and equitable for Enbridge to provide preferential status to procurement from First Nations in this context.

This is also supported by government policy. Counsel for the Indigenous intervenors canvassed the relevant policy documents during the hearing and will presumably highlight them in their submissions, and so they need not be repeated here.

The Indigenous Participation Framework will support economic reconciliation and should be approved.

## **Program scale**

The Energy Futures Group recommended reducing the size of the program "and redirect[ing] the savings to expanded energy efficiency."<sup>19</sup> All of the proposed funding for RNG would be better spent on energy efficiency. However, if less RNG funding will *not* translate into more DSM funding, Environmental Defence and the GEC do not object to the proposed volume and price caps.

If the OEB does reduce the size of the program, it should indicate that the funds can and should be spent on DSM instead, as those programs are the most cost-effective means of preparing for

<sup>&</sup>lt;sup>19</sup> Exhibit M1, p. 14 (<u>link</u>, PDF p. 14).

the energy transition (see above). Although this panel cannot determine the outcome of the upcoming DSM proceeding, its comments will certainly be considered.

## Conclusion

For the reasons set out above, Environmental Defence and GEC request that the OEB only approve the proposed RNG program if it also includes the following requirements:

- That any promotional material referencing RNG clearly indicate the percent of carbon emissions reductions achieved via RNG in the gas supply (on a lifecycle basis); and
- That the relative carbon intensities of RNG be properly accounted for in Enbridge's procurement criteria, either by purchasing RNG based on its cost per avoided tonne of emissions or by mandating a portfolio that is at least carbon neutral.

If the program is approved, Environmental Defence and GEC also ask that the OEB:

- Mandate a stronger focus on developing new supply and developing local supply;
- Approve the Indigenous Participation Framework; and
- Recommend that any funds saved via a smaller program be redirected to increased DSM programming.

RNG has an important niche role to play in the energy transition and customers will benefit from being able to secure supply before it is captured by other jurisdictions. However, those benefits would be outweighed by the downsides if the OEB does not ensure that greenwashing is avoided and that carbon is appropriately accounted for. This is important to minimize the risk that RNG distracts and takes resources away from far more important, feasible, and cost-effective means to help gas customers adapt to the energy transition.