Enbridge Feedback on Regulatory amendments to clarify program requirements and improve program efficiency for Emissions Performance Standards and GHG Reporting programs

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About Enbridge Gas Inc.

Enbridge Gas is Canada's largest natural gas storage, transmission and distribution company based in Ontario, with more than 175 years of service to customers. The distribution business provides safe, affordable, reliable energy to about 3.9 million homes, businesses and industries and is leading the transition to a clean energy future through net-zero emissions targets and investments in innovative low-carbon energy solutions. With the recently announced acquisition of three gas utilities serving customers in five US states, Enbridge will own and operate the largest gas utility franchise in North America. The storage and transmission business offers a variety of storage and transportation services to customers at the Dawn Hub, the largest integrated underground storage facility in Canada and one of the largest in North America. Enbridge Gas is owned by Enbridge Inc., a Canadian-based leader in energy transportation and distribution.

Learn more at www.enbridgegas.com.

Introduction

Enbridge Gas Inc. (Enbridge) supports the Government of Ontario's ongoing efforts to reduce red tape and administrative barriers and to ensure that Ontario homes and businesses continue to have access to reliable, affordable, and sustainable energy options.

Enbridge appreciates the opportunity to provide feedback on the Ministry of the Environment, Conservation and Parks' (MECP) proposed changes to Ontario's Emissions Performance Standards (EPS) and GHG reporting programs. In particular, this submission will focus on the proposed amendments to the GHG reporting regulation and the guideline aimed at enabling use of renewable natural gas (RNG) in the EPS Program.

This document includes a high-level executive summary of top recommendations, followed by: an overview of the robust commercial records, protocols and best practices already in-use by producers, EPS facilities, and reporting parties; a proposed approach for defining RNG as biomass; and additional considerations to avoid placing geographic limitations on RNG origins.

Executive Summary of Top Recommendations

Enbridge supports the MECP's proposed amendment to remove barriers to the use of RNG in the EPS program. The proposed approach would allow the deduction of verified RNG GHG emissions from an EPS-covered facility's ("covered facility") total verified emissions. This deduction would apply to any emissions from the combustion of RNG that was purchased under contract(s) between an RNG supplier and a covered facility, and notionally delivered to the covered facility by the gas pipeline network using a chain of custody approach. This is in line with how natural gas is currently transacted across North America between producers and their various markets, and how renewable electricity is also transacted through Power Purchase Agreements. In addition, this supports both the active development of an RNG market to reduce emissions for the province in the very-near term, and provides a competitive way for covered facilities to offset their EPS obligations. This is aligned with the province's leadership in renewable clean energy and by removing barriers to low-cost emission reductions options for producers and emitters, it supports Ontario's economic competitiveness and unlocks opportunities to drive economic growth through the development of RNG facilities in Ontario.

Enbridge's top recommendations are summarized below.

The first set of recommendations support the recognition of contractually delivered natural gas molecules including: discussion around system agnostic transaction record requirements; acceptance of RNG originating outside of Ontario; and the use of EPS program proceeds towards RNG purchases:

1) The EPS should recognize notionally transported RNG as a means to reduce EPS obligations (i.e. not limited to directly connected RNG only) and reporting requirements should leverage existing reporting, avoid introducing new or onerous requirements, and remain agnostic to nomination system.
2) It should be the responsibility of the covered facility to contractually obligate the producer or supplier of their gas to provide the necessary documentation under this program to substantiate the biomass fraction and biomethane production process for verification purposes.
3) Enbridge supports the initial step of accepting RNG produced and injected into Ontario's pipeline network as eligible to be deducted from the covered facility's EPS obligation, however, this should be expanded at the earliest opportunity, in order to remove the limitation to strictly Ontario RNG production and injected supply, where notional transportation of RNG from another jurisdiction is able to be demonstrated.
4) Enbridge recommends that RNG procurements by covered facilities should be an eligible activity or project to receive the EPS return of proceeds.

Enbridge has also provided recommendations that focus on creating clarity around the definition and properties of RNG to be included in the EPS program. Enbridge has suggested defining language and documentation to demonstrate how RNG usage meets the biomass requirements. Key to this discussion are claims around the ownership of RNG to be used at covered facilities, including traceability, biomass fraction and environmental attributes:

5) Enbridge considers RNG or biomethane as meeting the biomass criteria as set out in O. Reg. 390/18, Schedule 4, Section 3, Subsection xvii. To avoid confusion, Enbridge recommends amending the definition of "biomass" in O. Reg. 390/18 as follows: "means organic matter that meets the criteria set out in Schedule 4."
6) Enbridge recommends that the MECP refrain from imposing overly broad environmental attribute ownership requirements in the EPS that may prevent recognition of RNG in other regulatory programs. Enbridge recommends that attribute claims in RNG/biomethane contracts be limited to its recognition and ownership of its biomass attributes, and that any transacting on third-party registries or platforms be voluntary.
7) Enbridge recommends that RNG derived through anaerobic digestion be considered as 100 percent biomass, and that it is unnecessarily costly and burdensome to require a mass balance or carbon dating analysis of RNG derived from anaerobic digestion (i.e., landfill gas or biogas derived) to determine its biomass fraction, since non-biomass wastes do not contribute to the production of landfill gas or biogas.

Lastly, Enbridge has provided responses to the proposed changes in the ERO posting relating to facility specific performance standard:

8) It is recommended that a Facility Specific Performance Standard continues to apply to the natural gas transmission sector. Ontario has only two facilities within the natural gas transmission sector and as these facilities are unique, there is a need for each facility to have its own Baseline Emissions Intensity.

RNG Eligibility in EPS

Recognition of notionally delivered RNG

This proposed amendment will have significant benefits for large industrial facilities in Ontario, particularly those with limited emissions reduction options. RNG is a drop-in emissions reduction solution, meaning no upgrades to equipment or capital investments are needed, that will provide immediate results to help these companies meet near-term emissions reduction goals as well as maintain compliance with the EPS. Furthermore, the proposed changes will help covered facilities avoid more costly and inefficient solutions such as building a dedicated pipeline or trucking in RNG. Through Pipeline Nomination Records, notional delivery can be demonstrated by a covered facility showing the path of the title transfer from a producer to the facility.

Covered facilities are able to leverage the natural gas industry's current nomination system for transacting gas to provide Pipeline Nominations Records, which can demonstrate the chain of custody between an RNG supplier and a covered facility as well as the notional transportation and consumption of measured quantities of natural gas. On Enbridge's administration system, RNG producers will have access to their nomination reports for quantities of gas that they inject in a given period while large-volume end-users will also be able to export monthly reports for their natural gas consumption. Outside of nominations system reporting, covered facilities will need to contractually obligate the producer or supplier of RNG to provide the necessary reporting under this program to demonstrate that the produced natural gas meets the definition of biomethane. Enbridge's systems do not certify that a molecule of

natural gas injected into our systems meets the criteria or definition of biomethane under any regulatory program requirements applicable to end-users. Rather, our nominations systems and as we understand those operated by other pipeline infrastructure companies within the province, are able to demonstrate the notional transportation and chain of custody of a molecule of natural gas. Enbridge suggests that the MECP provide a list of recognized/accepted forms of record(s) so covered facilities can make the necessary preparations to meet these record requirements in discussion with their suppliers.

Pipeline Nomination Records requirements should not be limited to any one nomination system, as multiple pipelines and natural gas pipeline operators do business in Ontario. Should the limitation to Ontario-produced and injected RNG remain in this round of amendments to the EPS, it should be framed broadly and kept agnostic as to the system of record to avoid limitations of RNG produced and injected into currently existing or future pipeline transportation systems or other means of transportation that may exist in the future. Enbridge also recommends that the proposed requirements not exclude RNG purchases from third party intermediaries (e.g. marketers) between end users and RNG producers, as long as the chain of custody between the producer, marketer and end user can be demonstrated based on Pipeline Nomination Records and RNG transaction records, so as not to limit the end users' ability to obtain and provide suitable records.

RNG Supply from Outside Ontario

As noted above, RNG produced and injected into Ontario's gas pipeline network is able to be tracked using the natural gas industry's existing, robust nomination systems. Similar systems are currently used for natural gas that is traded and transported across North America. Enbridge supports the initial step of accepting RNG produced and injected into the Ontario gas pipeline network as eligible to be deducted from the covered facility's EPS obligation. However, we recommend that this recognition be expanded (as soon as possible, if not as part of this round of amendments) to remove the limitation to strictly Ontario produced and injected supply, where notional transportation of RNG from another jurisdiction is able to be demonstrated.

Allowing access to the interconnected pipelines across Canada and the US would provide wider access to RNG supply in a very competitive and nascent market. Additionally, as the RNG market develops, some jurisdictions are moving to contractual only requirements for RNG delivery, as notional or chain of custody approaches may lead to additional transaction costs. Recently, the British Columbia Utilities Commission (BCUC) began accepting RNG that is produced and injected anywhere within North America to be contractually sold to a utility, without showing notional transportation[1]. In this scenario, Pipeline Nomination Records would not necessarily exist, rather contractual or transactional records would show the purchase of RNG.

Use of EPS Proceeds Program

To further encourage the use of RNG and support covered facilities in achieving cost-effective emissions reduction, Enbridge recommends that RNG procurements by covered facilities be recognized as an eligible activity or project to receive the EPS return of proceeds. Permitting entities regulated under the EPS to utilize funding from the EPS Use of Proceeds Program to procure RNG for use at covered facilities is aligned with the Program's objective to support projects that reduce current or future GHG emissions at covered facilities.

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RNG as Biomass

Biomethane definition and attribute claims

RNG and biomethane are often considered as interchangeable terms and have been defined by various regulatory bodies and regulations. A list of the various definitions and the associated regulations are provided as an attachment to this submission. While these definitions vary in detail, references to RNG or biomethane being derived from organic matter, biomass or biogas are common inclusions.

Based on O. Reg. 390/18, Schedule 4 (Biomass Criteria), Enbridge considers RNG or biomethane as meeting the biomass criteria as set out in Section 3, Subsection xvii, as "It is fuel whose heat generating capacity is derived entirely from one or more items described in subparagraphs i to xvi", which includes Subsection xii (landfill gas), Subsection xv (biogas), and other materials as specified in Subsections i to xi that can be processed into RNG. To avoid confusion and contradictory language, Enbridge recommends amending the definition of "biomass" in Section 1(1) of O. Reg. 390/18 as follows: "means organic matter that meets the criteria set out in Schedule 4."

O. Reg 390/18, Section 12, Subsection 2 provides the formula to calculate the verification amount ("VA") of GHG emissions from a covered facility for a given reporting year. As provided in the VA formula, "carbon dioxide emitted from the combustion of biomass at the covered facility" is subtracted from the amount of GHG emissions from the covered facility. Where a covered facility has records of RNG deliveries to that facility, either through direct delivery (e.g., by trucks) or notional delivery through the gas pipeline network, Enbridge considers these records as confirmation that biomass (as RNG) has been combusted at the facility. In addition to maintaining records of RNG deliveries through the gas pipeline network, Enbridge suggests that covered facilities will need to ensure that attribute claims in biomethane contracts recognize that the final owner and end-user of the RNG (i.e., the covered facility) is entitled to report the RNG as biomass.

Enbridge recommends that the EPS require no further attribute claims in RNG/biomethane contracts to preserve potential RNG eligibility in other regulatory programs where it may qualify. Additionally, Enbridge recommends that registration and transacting of RNG and its attributes on third-party platforms (e.g. M-RETs[2]) be a voluntary activity, so as to avoid the potential for redundant administrative activities and costs. Since the EPS currently employs a third-party verification process, it is Enbridge's opinion that review of both the pipeline delivery records and the contract between the RNG producer and the covered facility should be adequate for the verifiers to determine that the covered facility is both the recipient of the notional delivery of RNG and the sole owner of the biomass attributes.

As noted previously, RNG has been defined and is recognized in multiple regulatory programs across Canada. These regulatory programs have varying objectives, point of regulation, compliance entities and metrics to determine compliance obligations and compliance options. Depending on the sector, some covered facilities in Ontario are subject to multiple regulatory compliance obligations. Most notable is the Clean Fuel Regulation ("CFR") introduced in June 2022 by Environment and Climate Change Canada ("ECCC"), which requires producers (i.e., refineries) or importers of liquid transportation fuels in Canada (termed "primary suppliers") to lower the carbon intensity of these liquid fuels over time. Primary suppliers (i.e., the CFR regulated entity) achieve compliance with the CFR by obtaining and retiring a specified number of compliance instruments (CFR credits which can be created or obtained through different activities) to ECCC. The use of RNG in stationary devices or mobile equipment is an activity eligible to create credits within the CFR program. Enbridge recommends that the MECP refrain from including overly broad environmental attribute ownership claims in the EPS that may inadvertently prevent the creation, transfer, or retirement of CFR credits or other compliance instruments from RNG usage. The

[2] Midwest Renewable Energy Tracking System

preservation of all potential value streams from RNG production and usage is critical for achieving compliance affordability and for covered facilities in Ontario to maintain competitiveness.

Enbridge considers it appropriate for CFR credits to be "stackable" for covered facilities that purchase RNG for use at their facility. CFR credits cannot be used as compliance instruments in other regulatory or voluntary programs and, therefore, ownership, transfer, or retirement of CFR credits between parties has no influence on the direct emissions produced or reported by a covered facilities or primary supplier.

Biomass Fraction

As it relates to O. Reg 390/18, Schedule 3 (Records to be Retained), Subsection 10 (Documentation of biomass fraction of specified fuels), it is Enbridge's recommendation that RNG derived from biomass meeting Schedule 4 criteria be considered as 100 percent biomass and that a valid permit to operate by regulating authorities (such as an Environmental Compliance Approval ("ECA") by MECP) that describes the RNG production facility and the materials from which the RNG is derived are sufficient to satisfy the Subsection 10 requirement. As an example, Enbridge's ECA permit 1283-CLMLTX specifies the location of the facility and the source of biogas (source separated organic waste) that is being upgraded into RNG.

While there are three known methods of producing RNG (anaerobic digestion, thermo-chemical processing, and methanation of hydrogen and carbon dioxide), currently anaerobic digestion is the most commonly deployed, technologically mature and commercially available technology to produce RNG. Enbridge considers the production of RNG from the anaerobic digestion process as representing 100 percent biomass. While landfills and anerobic digesters may receive non-biomass materials at their facilities, Enbridge understands that these non-biomass materials (e.g., metal, glass, plastics, inorganic soil fraction) do not undergo anaerobic digestion to produce methane. As such, a mass balance approach whereby the ratio of non-biomass to biomass received at a facility is used to determine the biomass fraction would be impractical and not appropriate. Enbridge also notes that lignocellulosic biomass (e.g., wood waste) is likely to be received at landfill sites and that the high concentration of cellulose and lignans makes these wastes resistant to anaerobic digestion and biogas production, which further highlights how a mass balance approach is likely to lead to an inaccurate characterization of the biomass fraction. Further, it would be unnecessary, costly and burdensome to require carbon dating analysis of RNG derived from anaerobic digestion (i.e., landfill gas and biogas) to determine its biomass fraction, since non-biomass wastes do not contribute to the production of landfill gas or biogas.

Enbridge suggests that the determination of the biomass fraction from either a mass balance or carbon dating approach should only be required for RNG that is produced via thermo-chemical or methanation processes, as these processes have the potential to utilize non-biomass materials for the production of methane, whereas anaerobic digestion does not.

Proposed Amendments to the EPS Regulation and the EPS Methodology

Facility Specific Performance Standard

It is recommended that a Facility Specific Performance Standard continues to apply to the natural gas transmission sector. Ontario has only two facilities within the natural gas transmission sector and as these facilities are unique, there is a need for each facility to have its own Baseline Emissions Intensity.

Enbridge is subject to the Facility Specific Performance Standard outlined by the EPS Methodology Method E, in which the Performance Standard requires parameter inputs of Baseline Emission Intensity

and the Stringency Factor calculated for non-fixed process (Formula 4.2-1 in Section 4.2). Regarding the non-biomass fraction parameter used in this formula, Enbridge wishes to propose clarification that the same records that the RNG producer and utility can provide to covered facilities could be used to derive the energy input from biomass fuel expressed in Gigajoules.

Conclusion

Enbridge appreciates the opportunity to provide feedback and recommendations on the MECP's proposed changes aimed at removing barriers for the use of RNG in Ontario. We remain committed to continue working with industry partners, local communities, and government to help inform next steps and welcome the opportunity to discuss these recommendations in further detail. If you have any questions or require additional information, please do not hesitate to contact Brad Lattanzi, Government Affairs Strategist (brad.lattanzi@enbridge.com).

Attachment 1: List of RNG Definitions

Federal Clean Fuel Regulations[3]:

"renewable natural gas means gas that meets the standard for injection into the closest natural gas pipeline and that is either synthetic natural gas derived from biomass or gas derived from the processing of biogas."

Federal Greenhouse Gas Pollution Pricing Act[4]:

"biomethane means

- (a) a substance that is derived entirely from biological matter available on a renewable or recurring basis and that is primarily methane; or
- (b) a prescribed substance, material or thing. (biométhane)"

Quebec Regulation respecting the quantity of gas from renewable sources to be delivered by a distributor[5]

"For the purposes of the Act respecting the Régie de l'énergie (chapter R-6.01) and this Regulation, natural gas is from renewable sources if it is produced

(1) from non-fossil organic materials degraded by means of biological processes, in particular by anaerobic digestion, or by means of thermochemical processes, in particular by gasification;
(2) from hydrogen produced in accordance with the second paragraph and from non-fossil carbon monoxide or carbon dioxide.

Another substance added to natural gas is from renewable sources if it is hydrogen that is produced

(1) from non-fossil organic materials degraded by means of thermochemical processes, in particular by gasification;
(2) by the electrolysis of water using electricity that comes exclusively from sources of renewable energy; or
(3) during an industrial process, the purpose of which is not to obtain the hydrogen and that is powered by energy that comes exclusively from renewable sources."

British Columbia Utilities Commission Inquiry into the Acquisition of Renewable Natural Gas by Public Utilities in British Columbia Phase 1 Report[6]
"the [BCUC] Panel determines that biomethane is pipeline quality gas derived from upgrading and processing biogas or biomass. Biomethane is indistinguishable from Conventional Natural Gas and can be injected into a gas pipeline system."

[3] The Government of Canada. (2023, November). Clean Fuel Regulations. Section 1, Definitions. SOR-2022-140.pdf (justice.gc.ca)
[4] The Government of Canada. (2023, November). Greenhouse Gas Pollution Pricing Act. Part 1, Division 1, Section 3, Definitions. G-11.55.pdf (justice.gc.ca)
[5] The Government of Quebec. (2023, September). Regulation respecting the quantity of gas from renewable sources to be delivered by a distributor. https://www.legisquebec.gouv.qc.ca/en/document/cr/R-6.01,%20r.%204.3
[6] British Columbia Utilities Commission. (2022, July). Inquiry into the Acquisition of Renewable Natural Gas by Public Utilities in British Columbia Phase 1 Report. Section 4.2.2 Biomethane. Page 10-11. https://docs.bcuc.com/documents/other/2022/doc_67310_final-rng-report.pdf