

January 5, 2024

Melissa Ollevier
Financial Instruments Branch
40 St. Clair Avenue West
Floor 8
Toronto, ON
M4V 1M2
Canada



Re: RNG Coalition Comments on Proposed Amendments to the Emissions Performance Standards and GHG Reporting Programs

Dear Ms. Ollevier,

The Coalition for Renewable Natural Gas (RNG Coalition)¹ offers the following comments in response to the proposal by the Ontario Ministry of the Environment, Conservation and Parks (MECP) to amend the Emissions Performance Standards (EPS) and greenhouse gas (GHG) reporting programs.² The proposed amendments could do more to enable renewable natural gas (RNG, or biomethane) to be used in Ontario as a market-based emission reduction instrument, as is done in multiple jurisdictions across North America.

Our comments herewithin share evidence on why market-based accounting (sometimes called “guarantee of origin certificates” or “book-and-claim accounting”) for renewable gases injected in North America accompanied by an online registry like M-RETS is the most proven method of ensuring renewable gas buildout and motivating rapid GHG benefits. We believe that the draft changes proposed by MECP to the EPS and GHG reporting regulations, while helpful, do not go far enough to make RNG a meaningful decarbonization option available to Ontario emitters looking to reduce their exposure to EPS carbon pricing. MECP has an opportunity to bring the Ontario EPS in line with a wide set of analogous programs across North America and Europe that allow RNG to fully participate.

About the RNG Coalition and the RNG Industry

RNG Coalition is the trade association for the renewable gas industry. Our diverse membership is comprised of leading organizations across the RNG supply chain including waste collection, recycling and waste management companies, renewable energy project developers, engineers, financiers, investors, manufacturers, technology and service providers, gas and power marketers, gas and power transporters, transportation fleets, fueling stations, law firms, environmental advocates, research organizations, municipalities, universities, and utilities. Together we advocate for the sustainable development, deployment, and utilization of renewable gas, so that present and future generations have access to domestic, renewable, clean fuel and energy in Ontario and across North America.

¹ <http://www.rngcoalition.com/>

² Environmental Registry of Ontario, “Regulatory amendments to clarify program requirements and improve program efficiency for Emissions Performance Standards (EPS) and GHG Reporting programs.”
<https://ero.ontario.ca/notice/019-7649>

RNG Coalition is primarily focused on renewable gas derived from organic waste feedstocks which can achieve compound benefits through (1) the displacement of carbon dioxide (CO₂) emissions from the combustion of fossil fuels, (2) the critical near-term GHG impact of methane capture and destruction, and (3) additional benefits that result from the improved management of organic waste. Recycling organic material in this manner is a key component of a circular economy.

Renewable gases are an important near-term decarbonization strategy for all applications which currently utilize conventional fossil-derived gas and, in the long-term, will be necessary in energy applications which are not well-suited to electrification and as platform molecules for other fuels and products such as sustainable aviation fuels. Multiple EPS facilities are prime candidates to become long-term users of renewable gas in a fully decarbonized economy.

The fragmented nature of provincial- and state-level policy in North America means that, in a manner similar to the effort the European Union is currently undertaking, governments must seek to align renewable gas procurement frameworks in order to accelerate the deployment of renewable gas projects.

Ontario Should Embrace Proven Systems to Incent North American RNG and Track Ownership of Environmental Attributes

MECP's current proposal to allow RNG injected in the Ontario distribution system and purchased by a contract to allow an EPS facility to reduce its GHG emissions without requiring dedicated pipes that carry only renewable gas is a first good step. However, the amendments should go farther to make a stronger impact. RNG Coalition supports an approach that would allow RNG injected anywhere in the North American gas grid to be eligible, instead of limiting eligible resources to RNG injected in the Ontario gas distribution system only. Expanding eligible supply beyond the provincial borders would align the EPS with other existing, successful clean energy deployment programs in North America and set reinforcing incentives for buildout of RNG both in and outside of the province.

Both RNG and renewable hydrogen are in an early stage of deployment compared to their production potential and compared the projected long-term need for gaseous clean fuels. The International Energy Agency's *Net Zero by 2050: A Roadmap for the Global Energy Sector* projects that the supply of low-emissions gases, such as hydrogen, synthetic methane, biogas and biomethane could rise globally from 2 exajoules (EJ) in 2020 to 17 EJ in 2030 and 50 EJ in 2050 in a global economy that achieves net-zero GHG emissions.³ Canada's long-term vision is to become one of top 3 global clean hydrogen producers, with domestic supply above 20 megatonnes (Mt) per year by 2050.⁴ Ontario's share of these projected benefits from hydrogen production could include over 100,000 jobs and GHG emissions reductions of 50 Mt of carbon dioxide equivalent (CO₂e) per year.⁵

³ <https://www.iea.org/reports/net-zero-by-2050>

⁴ Natural Resources Canada, *Hydrogen Strategy for Canada* (2020), pdf page 20. https://natural-resources.canada.ca/sites/nrcan/files/environment/hydrogen/NRCan_Hydrogen%20Strategy%20for%20Canada%20Dec%202015%202200%20clean_low_accessible.pdf

⁵ Government of Ontario, *Ontario's Low-Carbon Hydrogen Strategy* (2022). <https://www.ontario.ca/page/ontarios-low-carbon-hydrogen-strategy>

Robust and efficient accounting systems are necessary to facilitate rapid growth in renewable gas supplies. Renewable gases produced and used within an integrated gas system⁶ will rely on matching low carbon supply to the end-users who pay an environmental premium for the development of these fuels in recognition of their GHG benefits. If entities are not able to claim ownership of pipeline-injected renewable gases from the integrated system, there will not be enough incentive to drive development of renewable gas, removing a key option to EPS facilities to avoid paying a carbon price. Simply put, market-based accounting connects buyers to sellers and is the most proven method to allow fair ownership claims of the environmental benefits associated with renewable gas.⁷

Existing Precedent Shows that Market-Based Accounting Works to Incent RNG Buildout

It is important to understand that the buildout of North American RNG supply to-date can largely be attributed to the value of tradeable credits in transportation decarbonization compliance markets that employ market-based book-and-claim accounting. As shown in Figure 1, the number of RNG production facilities in North America has grown rapidly in recent years. The overwhelming majority of this growth can be directly traced to the U.S. EPA's Renewable Fuel Standard and California's Low Carbon Fuel Standard, both of which rely on book-and-claim to provide value to project developers. Based on this and other similarly successful frameworks, many additional renewable gas procurement programs have been implemented which are based on similar accounting to track renewable gas claims.

The same concepts are employed under other Clean Fuel programs in Oregon, Washington, and Canada on the federal level. Some form of similar book-and-claim accounting also underlies Renewable Gas Standard and Clean Heat Standard policies in California, Colorado, Minnesota, New Hampshire, Oregon, British Columbia, and Québec. Furthermore, voluntary renewable energy procurement frameworks that employ similar concepts include the Climate Disclosure Project, The Climate Registry, RE100, and Airport Carbon Accreditation.

⁶ A connected gas pipeline system that was initially designed to move conventional (fossil) gas, and that will continue to do so in large quantities, at least in the near term.

⁷ European Biogas Association), World Biogas Association, RNG coalition and European Renewable Gas Registry, *Renewable Gas Tracking Systems* (2023).

<https://static1.squarespace.com/static/53a09c47e4b050b5ad5bf4f5/t/6565f9e1ab4ae045ef2b69fb/1701181923045/20231123+-+Joint+Paper+on+RG+Tracking+Systems+-+Final.pdf>

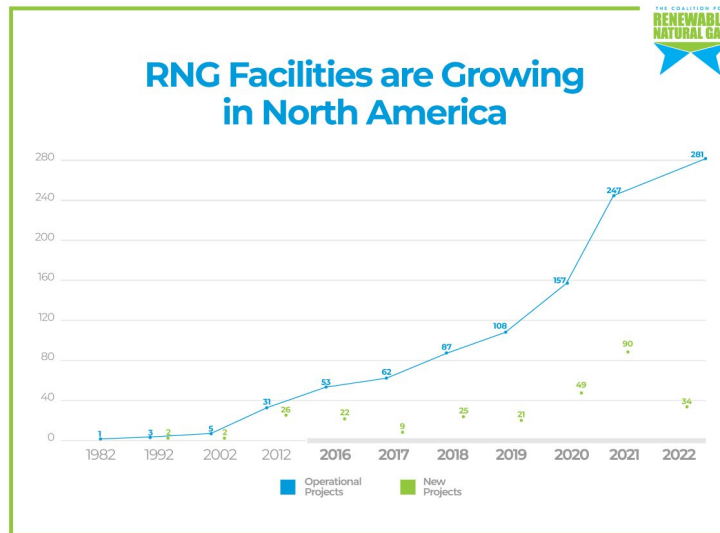


Figure 1. North American RNG Growth

Perhaps the most well-developed systems for tracking renewable gas environmental attributes exist in Europe, where book-and-claim backed by “guarantees of origin” (or the slightly more nuanced “mass balance” approach) has long been the norm. Biomethane plants are exponentially growing across Europe, reaching a total of 1,322 facilities as of April of 2023.⁸ Certificate-based guarantee of origin systems (e.g., book-and-claim) have proven success stories in multiple countries, none more striking than Denmark. As shown in Figure 2, in 2023, over 35% of Denmark’s gas consumption is already met by RNG.⁹ On July 15 and 16, 2023, Denmark even met its entire domestic gas demand with RNG.¹⁰ The Danish Government is aiming to grow biomethane’s share of its domestic gas market to 100% by 2030¹¹ in line with their Green Gas Strategy, which prioritizes free trade of green gases across borders and states that:

When a biogas plant feeds (biomethane) into the gas system, it is mixed with other gas. In the gas system, both (biomethane) and natural gas are mixed to form a uniform gas. In order for the gas supplier to prove the origin of the gas supplied to the final customer, guarantees of origin are used. Energinet (the gas system operator) issues guarantees of origin, thereby ensuring that it can be documented that a consumed volume of gas is matched by an equivalent production of green gas. This system prevents double counting of renewable energy, allowing companies and other consumers to pay for green gas.

⁸ European Biogas Association, “Biomethane Map 2022-2023.” <https://www.europeanbiogas.eu/biomethane-map-2022-2023/>

⁹ Energinet, “Biomethane” (see Share of Biomethane chart from January 2023 onward). <https://en.energinet.dk/Gas/Biomethane/>

¹⁰ Ibid

¹¹ Energinet, “Danish Biomethane Experience.” <https://en.energinet.dk/gas/biomethane/danish-biomethane-experience/>

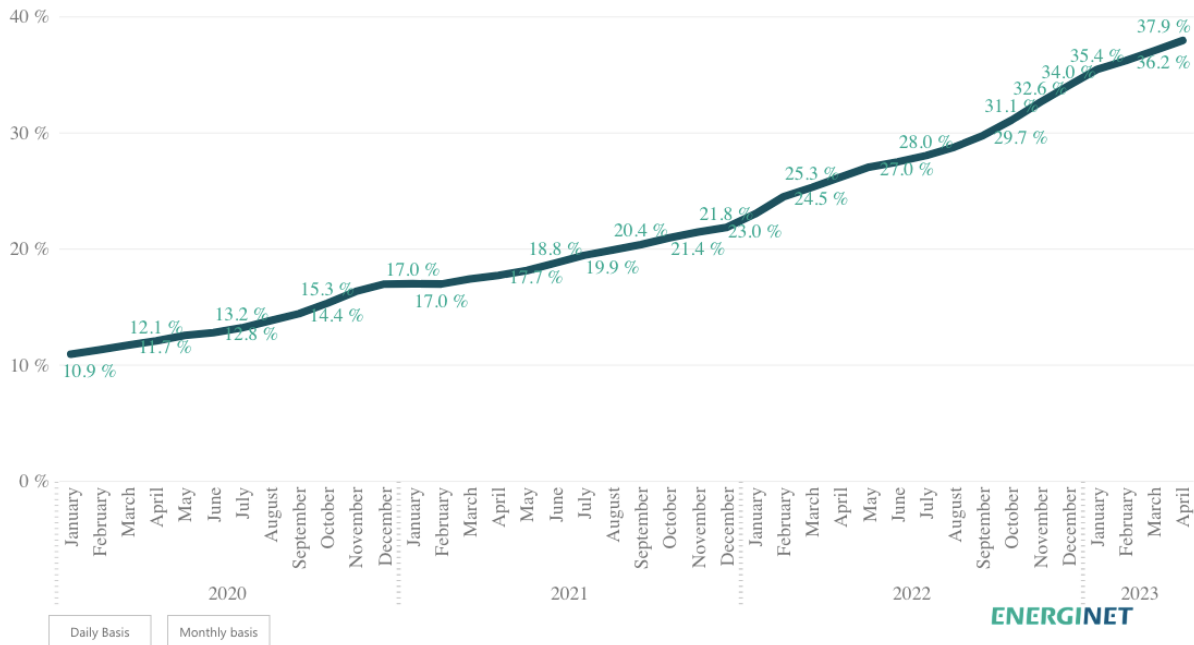


Figure 2. Danish Biomethane Consumption Share

Adopt the M-RETS System as a Registry for Tracking RNG Volumes Would Improve the Integrity of the EPS

The digital infrastructure designed to support RNG book-and-claim tracking across North America already exists and is ready to be paired with all of Ontario’s programs. These tracking systems issue a unique, traceable, digital certificate (often known as a Renewable Thermal Certificate, or RTC) guaranteeing the origin of RNG and tracking ownership of associated environmental attributes. M-RETS¹² is a renewable energy credit and renewable thermal credit platform which is currently tracking production of RNG volumes and ownership of associated environmental attributes for various markets, including Oregon’s Clean Fuel Program,¹³ utility procurement of RNG in Oregon,¹⁴ California’s renewable gas standard,¹⁵ Washington’s Clean Fuel Standard,¹⁶ and for those who voluntarily purchase renewable gas to meet sustainability goals outside of compliance programs.

Ontario adopted M-RETS on March 29, 2023, as the registry platform for the creation, transfer and retirement of clean energy credits in the provincial electricity market run by the Independent Electricity

¹² Formerly known as the Midwestern Renewable Energy Tracking System. <https://www.mrets.org/>

¹³ Oregon Department of Environmental Quality, Clean Fuels Program Expansion 2022 - Filing 2 (Permanent Administrative Order), Pages 35 and 55. <https://www.oregon.gov/deq/rulemaking/Documents/DEQ17-2022.pdf>

¹⁴ Oregon Public Utility Commission, AR632. See OAR §860-150-0050: <https://apps.puc.state.or.us/orders/2020ords/20-227.pdf>

¹⁵ California Public Utilities (CPUC), Decision Implementing Senate Bill 1440 Biomethane Procurement Program, Page 50. <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M454/K335/454335009.PDF>

¹⁶ Washington Clean Fuel Program Rule, page 35. <https://ecology.wa.gov/DOE/files/e9/e97a5150-9ed2-4512-a4fd-6b0317f907dc.pdf>

System Operator (IESO).¹⁷ We strongly suggest that Ontario employ the M-RETS system for tracking RNG volumes in all programs (including the EPS and the Cleaner Transportation Fuel Regulations). This should eliminate concerns related to double counting, ensuring transparency in volume origination, and allowing integration with other regional programs and markets.

It is better to start with one uniform tracking system in North America than to attempt to merge provincial- and state-level systems at some future date. For example, the European Renewable Gas Registry (ERGaR) was established as an independent, transparent and trustworthy documentation scheme for tracking RNG and other renewable gases distributed along the European gas network.¹⁸ The European Union's Renewable Energy Directive (RED II), Article 28 also calls upon Member States to work in tandem with the Commission to strengthen tracking systems on the national and voluntary level for renewable fuels, including through the creation of an EU-run database, but this proved to be a complex exercise.^{19,20} Recently there was also a €3 million EU-funded project known as REGATRACE²¹ to develop an efficient trading system based on the issuance and trading of Guarantees of Origin (GO) for RNG.²² The final report²³ from this process contains the following statements:

The European Renewable Gas Registry (ERGaR) was started by and continues to be composed of long-established registries and stakeholders of the biomethane and renewable gas industry. A growing imbalance between biomethane production and consumption in several countries necessitated crossborder transfers. Individual bilateral solutions were established, but in most cases member states refused to grant any benefits to imported biomethane. As such, it has been in its best interest to create a system in which the cross-border transfer of gas certificates could be both technically facilitated and recognised in the target country.

GOs serve only for consumer disclosure, which means that the “green gas” attribute is separated from the gas physical volume. This model is called “book and claim” and is useful for setting the path to the European biomethane market because the GOs help document the volumes being produced, distributed and consumed.

¹⁷ Independent Electricity System Operator, Clean Energy Credits. <https://ieso.ca/en/Sector-Participants/Clean-Energy-Credits/Ontario-Program>

¹⁸ <https://www.ergar.org/about-us/>

¹⁹ <https://www.regatrace.eu/wp-content/uploads/2019/11/REGATRACE-D2.1.pdf>

²⁰ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.328.01.0082.01.ENG&toc=OJ:L:2018:328:TOC

²¹ <https://www.regatrace.eu/>

²² Given the recent gas crisis in Europe, the EU now plans to increase biomethane deployment to displace 17 bcm of gas imports in the short-term (approximately equivalent to all natural gas demand for power production in California). https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/repower-eu-affordable-secure-and-sustainable-energy-europe_en

²³ https://www.europeanbiogas.eu/wp-content/uploads/2022/11/EN_Renewable-GAs-TRAdE-Center-in-Europe_WEB.pdf

Geographic Limitations Will Not Increase the Pace of Project Development in Ontario and Do Not Improve Program Integrity

We oppose any geographic restrictions on renewable gases that are not also imposed on the use of conventional gas. It is not possible to physically segregate delivery of renewable gas once it is intermingled with fossil gas in the pipeline system and geographic limitations are therefore unnecessary and arbitrary. Until RNG volumes achieve more of a critical mass, with broad adoption displacing a significant share of fossil gas, renewable gas producers cannot change physical flow of the gas system significantly. Therefore, full book and claim for all North American RNG should remain the preferred option throughout all of Ontario's GHG programs, including the EPS.

Full market-based accounting will allow diverse downstream customers to create an aggregate demand that can be served by all RNG suppliers, regardless of geographic location, and thereby send a stronger market signal across the supply chain to all potential project developers to build the RNG resource in a rational way—starting with the most cost-effective projects. The supply of conventional gas that currently serves Ontario is quite geographically broad (and primarily originates out of province). Sources of fossil natural gas supply include Western Canada, Chicago, Niagara, the U.S. Mid-Continent and Appalachia.²⁴ There is an existing robust and liquid market for physical gas delivery, that optimizes moving gas from supply to demand in a least cost (and generally lowest GHG)²⁵ fashion.

Full book and claim for all North American RNG allows an RNG overlay to the existing gas system in the most efficient way possible, rather than trying to fight against the current system to get to a limited subset of gas demand to the areas that demand renewable gases and potentially backflowing conventional gas to the areas that do not. Any geographic constraints—including a constraint focused on requiring only in-Ontario supply—would require RNG developers to try to change the dispatch of the gas system to match physical supply to the subset of gas load that is currently willing to procure RNG. This is not optimal if, in the long run, all demand will eventually be sourcing renewable gases.

In summary, as described above, the vast majority of the RNG supplied in North America under existing programs is transacted via full book-and-claim accounting. This tried-and-true approach's flexibility has resulted in overwhelmingly positive GHG emissions reduction. For example, in 2022, through that approach, the U.S. transportation sector used 54.10 petajoules (or 15 terawatt-hour of RNG), resulting in GHG emissions reduction of 5.6 Mt CO₂e on a lifecycle basis.²⁶ Creating consistency and fungibility between all North American RNG markets through the aligned use of book and claim would increase competitiveness, improve investment certainty, and lead to the sustainable growth of the renewable gaseous fuel industry.

²⁴ Enbridge Gas Inc., *2022 Annual Gas Supply Plan Update* (EB-2022-0072), Pdf page 28-31.
<https://www.rds.oeb.ca/CMWebDrawer/Record/741437/File/document>

²⁵ Moving gas unnecessarily requires additional energy and emissions from compression stations and potential methane leakage.

²⁶ Natural Gas Vehicles for America and Coalition for Renewable Natural Gas, "Renewable Natural Gas Motor Fuel Interest Continues Growth," press release, May 3, 2022.
<https://static1.squarespace.com/static/53a09c47e4b050b5ad5bf4f5/t/62712c86aaa7fe639c81c34f/16515841349>

Conclusion

RNG Coalition believes that MELCP should expand the scope of its proposed changes by allowing RNG injected into the North American gas system to be used by EPS facilities. Requiring the use of an electronic tracking system like M-RETS, which is already being used by the IESO to track clean energy credits in the electricity market, would be the best approach to support the expansion of the role of renewable gas in decarbonizing Ontario's high emitters while strengthening the integrity of the EPS. Adopting those changes will support a strong renewable gas industry in Ontario. Our goal is to create a uniform market across North America so that renewable gas injected into the gas system can be moved freely between jurisdictions to the buyers that provide the highest value.

The existing gas system was constructed to move gas from conventional sources to load. In the future, directional flows and pipeline paths will adjust when the system is driven by renewable supply, but we are very far from that point today. Balkanization of the renewable gas market in the early stages of development will simply increase costs for all parties, slow development, and reduce RNG's ability to contribute to Ontario's decarbonization goals.

Given the primary objective of the EPS is to drive down global GHG emissions, we recommend the adoption of a full book-and-claim mechanism for tracking all use of renewable gases and the use of M-RETS as the electronic registry underlying such accounting. This would support the optimized growth of North American RNG market and allow RNG to contribute most fully to Ontario's GHG emissions reduction targets.

Sincerely,

/V/

Vincent Morales

Manager of Legislative and Regulatory Affairs

Coalition for Renewable Natural Gas

(916) 588-3033

vincent@rngcoalition.com