December 15, 2025

Patrick Wruck
Commission Secretary
BC Utilities Commission
6th Floor 900 Howe Street
Vancouver, BC V6Z 2N3

Comments on British Columbia Utilities Commission Renewable Natural Gas Definition and Accounting Proceeding

Dear Mr. Wruck,

On behalf of the Electric Natural Gas Coalition (eNG Coalition), I am writing to provide comments on the British Columbia Utilities Commission's (BCUC) Review of Renewable Natural Gas Definition and Accounting (Proceeding).[1]

eNG Coalition is a global platform dedicated to raising awareness of e-methane (electric natural gas or e-NG), promoting its tradability, fostering policy support, and driving harmonization of applicable regulations and standards. eNG Coalition's members include energy producers and end-users with substantial industrial expertise and investment capacity across energy technologies.

We believe that e-NG, as part of the broader energy economy, will play a critical role in decarbonization as a low-carbon alternative to fossil gas. This strategy aligns directly with British Columbia's (BC) Clean Energy Strategy,[2] Roadmap to 2030,[3] and Hydrogen Strategy,[4] which are unequivocal regarding the need to renewable gases as part of BC's energy transition.

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[1] Proceeding: *BCUC Review of Renewable Natural Gas Definition and Accounting*, British Columbia Utilities Commission (https://www.bcuc.com/OurWork/ViewProceeding?applicationid=1355)
[2] *Our Future: B.C.'s Clean Energy Strategy*, Government of British Columbia (https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/community-energy-solutions/powering_our_future_-_bcs_clean_energy_strategy_2024.pdf)
[3] *Clean BC Roadmap to 2030*, Government of British Columbia (https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_roadmap_2030.pdf)
[4] *B.C. Hydrogen Strategy*, Government of British Columbia (https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydrogen_strategy_final.pdf)

eNG Coalition's primary goal in this proceeding is to ensure that e-NG is properly considered within BC's gas decarbonization policies. Our comments here within address essential background information regarding the production process and benefits of e-NG, and two primary issues under consideration within the Proceeding:

1) BCUC's definition of biomethane should include e-NG that is derived from biogenic carbon.

2) Existing compliance requirements are sufficient to protect against double-counting of acquired renewable natural gas (RNG). BCUC should require a third-party environmental attribute tracking system to add an extra layer of protection, streamline compliance, and expand connectivity.

Producing e-NG and Environmental Benefits

e-NG is a synthetic form of natural gas produced using electricity, carbon dioxide (CO_2), and water. First, through a process called electrolysis, electricity is used to produce hydrogen by splitting a water molecule.[5] This hydrogen is then combined with CO_2 in a chemical reaction, typically the Sabatier process, to produce methane (CH_4), which can be stored, transported, and used in existing natural gas infrastructure. The resulting e-NG has the same chemical properties as geologic natural gas, making it compatible with current energy systems and applications.

Importantly, the CO_2 component of e-NG is sourced from either (1) waste biogenic CO_2[6] emissions or (2) CO_2 captured from industrial processes. Both pathways transform waste CO_2 into a valuable commodity. Likely near-term sources of CO_2 feedstock in BC include the CO_2 portion of raw biogas (i.e., biomethane production facilities) and recycled CO_2 emissions. In utilizing the biogenic CO_2 streams, including from biomethane upgrading, e-NG production could nearly double the supply of RNG available. For example, Tree Energy Solutions' (TES) Mauricie facility in Quebec will produce 70,000 tons of green hydrogen per year, with 2/3 slated for use as a feedstock for biogenic e-NG. The other 1/3 is to be used in Quebec's transportation sector, highlighting the versatility of hydrogen and e-NG production facilities.

Understanding the GHG Benefits of e-NG

[5] While hydrogen production from electrolysis is the most common production pathway, e-NG Coalition supports the use of all clean hydrogen production pathways as a feedstock for creating e-NG.
[6] See *Fossil vs Biogenic CO2 Emissions*, International Energy Agency (https://www.ieabioenergy.com/iea-publications/faq/woodybiomass/biogenic-co2/)

e-NG plays a key role in reducing greenhouse gas (GHG) emissions as a replacement for fossil natural gas. When produced using zero-emission electricity, e-NG has the potential to be carbon neutral, as the CO_2 used in its creation can be obtained from biogenic sources, industrial sources that would otherwise be released into the environment, or captured from the atmosphere (i.e., via direct air capture (DAC)).

There are three primary ways in which e-NG (and e-fuels, broadly) reduce GHG emissions: (1) Displacing fossil gas and its CO_2 emissions; (2) when the CO_2 feedstock is biogenic or obtained via DAC, emissions at combustion are carbon neutral; when made with recycled CO_2, the avoidance of fossil emissions offsets emissions at combustion; (3) serving as a mechanism for storing clean electricity in existing energy infrastructure, enabling a greater decarbonization potential for clean electricity in economic activities that are better suited to fuels than direct electrification.

The Role of e-NG in BC's Economy

BC Gas Transition Strategy

BC's gas transition strategy envisions maintaining and decarbonizing existing gas infrastructure as a prominent strategy. British Columbia's (BC) Clean Energy Strategy,[7] Roadmap to 2030,[8] and Hydrogen Strategy[9] outline the intent to shift from fossil gas toward a mix of low-carbon alternatives, while ensuring system reliability and consumer choice:

- "Maintaining BC's existing gas infrastructure is necessary to ensure BC can deliver clean fuels as production ramps up in the years ahead, in addition to supporting the resiliency of BC's energy system" – *Powering Our Future: B.C.'s Clean Energy Strategy*

- "The system that delivers natural gas to heat homes and businesses today will transition to also deliver cleaner fuels like renewable natural gas and hydrogen" – *Clean BC Roadmap to 2030*

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[7] See *Maximizing our Production of Clean Fuels*, p. 19-23 in *Powering Our Future: B.C.'s Clean Energy Strategy* (https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/community-energy-solutions/powering_our_future_-_bcs_clean_energy_strategy_2024.pdf)

[8] *Clean BC Roadmap to 2030* (https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_roadmap_2030.pdf) references renewable gases throughout the document.

[9] *B.C. Hydrogen Strategy* (https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydrogen_strategy_final.pdf) discusses hydrogen as an input to low-carbon synthetic fuels and lists specific policy actions to encourage synthetic fuel production and uptake (pg. 26, 36).

- "Hydrogen can also be used for producing low-carbon synthetic fuels to reduce emissions in transport and industry" – *B.C. Hydrogen Strategy*

Indeed, BC's renewable gas procurement framework under consideration in this Proceeding is expected to continue to be a key tool for enabling gas utilities to invest in and acquire renewable gases, with a target that a minimum of 15 % of the natural gas supply be renewable by 2030. We envision that e-NG will play a role in decarbonizing BC by as an emerging production pathway for renewable gas, especially when produced from biogenic CO_2. Although costs are currently high compared to fossil gas, the cost of e-NG is expected to decline, with modelers at the International Energy Agency (IEA) forecasting e-NG to play an important role in decarbonizing gas grids and adjacent technologies.[10] Overall, e-NG has the potential to serve multiple roles across BC's economy, providing a versatile solution in direct support of the province's climate strategies, air and water quality goals where fossil fuel production and use is avoided, energy security, and significant local economic benefits and job creation.

As BC and Canada consider how best to move forward their climate strategies, there is a growing international recognition of the role of sustainable fuels, chemicals, and materials. A recent report from the International Energy Agency[11] substantiates the importance of sustainable fuels in reaching net zero, explicitly including e-NG, and outlines how the world can quadruple their production by 2035 under existing and announced policies. This report underpins the recent *Belém 4X Pledge on Sustainable Fuels*[12] which also outlines key policy priorities that are relevant to the Proceeding. Canada is an inaugural signatory to the Pledge, and given increasing investments in and commercialization of e-fuels technologies in Canada, this Proceeding presents an important opportunity for BCUC to support its goals by clarifying that e-NG can qualify as an eligible form of biomethane.

Relationship Between e-NG and Broader e-fuels Production

In this context it is also important for BCUC to consider how designing a policy framework that is supportive of e-NG will enable broader e-fuel production in the province and nationally. The critical components of e-NG production, electrolyzers for hydrogen

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[10] *E-methane: a new gas for a net zero future?*, International Energy Agency (https://iea.blob.core.windows.net/assets/9b86ac2a-2055-4eac-9f93-6ab379554d6d/IEA_E-methaneanewgasforanet-zerofuture.pdf)

[11] *Delivering Sustainable Fuels*, International Energy Agency (https://iea.blob.core.windows.net/assets/49afc3ce-527d-4637-bde5-005416afed24/DeliveringSustainableFuels.pdf)

[12] See *Belém 4X Pledge on Sustainable Fuels* (https://www.gov.br/mre/en/contact-us/press-area/press-releases/launch-of-the-belem-4x-pledge-on-sustainable-fuels/2025-10-23_cop30-declaration_sustainable-fuels.pdf)

production and CO_2 capture infrastructure, are common with e-fuels production more generally.

The development of e-NG supports innovation across several key areas in energy production, storage, and infrastructure. This includes through the advancement of e-fuels production technologies, improving hydrogen production efficiency, and enhancing CCU methods. It also fosters the adaptation of existing natural gas infrastructure to handle renewable-based synthetic fuels, creating new technical and business opportunities. Additionally, e-NG encourages collaboration across the clean energy value chain, between producers and consumers of clean electricity and clean molecules.

The near-term development of a strategy that considers e-NG and other e-fuels for sectors that are expected to utilize fuels in the long-term will help position BC as a leading producer of these technologies. In this context it is additionally important to consider the role of methane as a crucial platform molecule for other fuels and chemicals, especially given projections that, absent a sustainable substitute, large amounts of fossil gas will continue to be used in these sectors for the foreseeable future.

Response to Key Questions

This section includes eNG Coalition's responses to the questions posed by BCUC in Order G-137-25 within the Proceeding.[13]

e-NG is a Form of Biomethane as Defined by BCUC

Question 1(a): "If amendments to the definition of RNG are required, what amendments would be appropriate and what purpose would the amendments serve?"

This Proceeding presents an important opportunity for BCUC to clarify that e-NG produced from biogenic carbon qualifies as an eligible form of biomethane. Previous BCUC proceedings include definitions for biomethane and renewable natural gas (RNG),[14] as well as a determination that "lignin, synthesis gas, and hydrogen" do not qualify as RNG.[15] However, these proceedings are unclear regarding the qualification of biogenic e-NG.

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[13] *Review of Renewable Natural Gas Definition and Accounting, Order G-137-25, Appendix B*, British Columbia Utilities Commission (https://docs.bcuc.com/documents/proceedings/2025/doc_82215_a-2-g-137-25-timetable.pdf)

[14] *Inquiry into the Acquisition of Renewable Natural Gas, Phase 1, Order G-212-22*, British Columbia Utilities Commission (https://docs.bcuc.com/documents/other/2022/doc_67309_g-212-22-bcuc-rng-inquiry-phase1-decision.pdf)

[15] *Inquiry into the Acquisition of Renewable Natural Gas, Phase 2, Final Report – Phase 2*, British Columbia Utilities Commission (https://docs.bcuc.com/documents/other/2023/doc_71871_bcucrnginquiryphase2finalreport.pdf)

In its *Final Report – Phase 2*, BCUC defines RNG as inclusive of biomethane, and defines biomethane as "pipeline quality gas derived from upgrading and processing biogas or biomass." Based on this definition, the upgrading and processing of biogenic CO_2—including the CO_2 portion of raw biogas—for pipeline-injected biomethane via the process of methanation should be defined as biomethane; this action clearly qualifies as "processing biogas or biomass" into "pipeline quality gas". Here it is important to note that biogas-derived e-NG is typically created at the RNG production site and pipeline-injected alongside conventional biomethane.

Furthermore, the Greenhouse Gas Reduction Regulation (GGRR) supports this determination in its definition of "acquiring renewable natural gas", which states that "**"acquires renewable natural gas"** includes producing renewable natural gas by producing or purchasing biogas and upgrading it to renewable natural gas."[16] (Emphasis added.)

Quebec's Definition of RNG Serves as an Example of Inclusive Policy

In clarifying its definition of biomethane as inclusive of biogenic e-NG, BCUC should also consider the following definitions put forward by Quebec.[17] Quebec is perhaps the most prominent example of where this issue has been considered elsewhere in the Canadian context. Striving for policy alignment across Canda's provinces that are leading on gas sector decarbonization will facilitate a common understanding of technology pathways, and help to establish fungible markets in support of decarbonization:

- **Renewable Natural Gas (RNG):** Methane (CH_4) produced from non-fossil organic matter via biological or thermochemical processes. RNG is fully interchangeable with conventional natural gas.
- **Biogenic CO_2:** Carbon dioxide originating from non-fossil organic matter, part of the natural carbon cycle.
- **Methanation:** The process of combining green hydrogen (H_2) with biogenic CO_2 to produce methane (CH_4), using either biological or catalytic methods.

e-NG Should Not be Conflated with Other Resources that are Already Clearly Defined

[16] *Greenhouse Gas Reduction Regulation, Clean Energy Act,* B.C. Reg. (https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/102_2012)
[17] https://www.quebec.ca/agriculture-environnement-et-ressources-naturelles/energie/sources-energie/bioenergies/gaz-naturel-renouvelable

BCUC in *Inquiry into the Acquisition of Renewable Natural Gas, Phase 2* determined that lignin, synthesis gas and hydrogen are *not* considered to be RNG under the GGRR because they are treated separately in their own "prescribed undertaking" sections. eNG Coaliton does not disagree with this determination; the qualification of biogenic e-NG as biomethane is a separate issue.

Here it is important to clarify that e-NG is commonly referred to as "synthetic methane" which is an umbrella term that may include "synthesis gas". However, e-NG is commonly understood to be distinct from "synthesis gas". In the context of BC precedent, this difference is substantiated within FortisBC Energy Inc.'s (FEI) process of filing its *Revised Renewable Gas Program Application*,[18] which defines synthesis gas as "a mixture of gases produced from the gasification or pyrolysis of biomass". Furthermore, the BCBN Hydrogen Study[19] defines "Syngas, or synthesis gas" as "a fuel gas mixture consisting primarily of hydrogen, carbon monoxide, and very often some carbon dioxide".

Given this understanding, e-NG should not be conflated as a form of synthesis gas, and eNG Coalition maintains that e-NG has not been fully considered by the Commission. At minimum, BCUC should at this stage clarify that biogenic e-NG is a form of biomethane.

Future Eligibility Considerations

Furthermore, we note that prior to and separate from the determination related to "lignin, synthesis gas, and hydrogen," BCUC in *Phase 1* did consider that RNG may be defined more broadly:

> *"The Panel provides clarification to the finding made in the Draft Phase 1 Report that while "a unit of Natural Gas plus the Environmental Attributes [EA] associated with the production of an equivalent unit of biomethane" is an example of Renewable Natural Gas, the full definition of Renewable Natural Gas may be more expansive."* (Emphasis Added)

With this in mind, we believe that there should be an opportunity in the future for BCUC to consider additional renewable gas pathways—including e-NG produced from recycled carbon (i.e., non-biogenic) feedstocks.

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[18] See response from FEI to Information Request 1 for *Revised Renewable Gas Program Application – Stage 2 (Application)* (https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/gas-utility/220516-fei-stage-2-revised-rg-program-bcoapo-ir1-response-ff.pdf?sfvrsn=54ef7265_2&utm)

[19] *British Columbia Hydrogen Study*, Government of British Columbia (https://www2.gov.bc.ca/assets/gov/government/ministries-organizations/ministries/zen-bcbn-hydrogen-study-final-v5_noappendices.pdf)

Market-Based Procurement of Renewable Gas

Question 1(b): Are the existing compliance requirements sufficient to protect against the double-counting of environmental attributes in BC and in other jurisdictions?

Based on an analysis of relevant guidelines, including those within *Inquiry into the Acquisition of Renewable Natural Gas by Public Utilities in British Columbia – Phase 1 & Phase 2*, the existing compliance requirements can be summarized as follows:

- Acquisition of RNG is limited to bundled or unbundled biomethane. In other words, acquisition must always include (1) environmental attributes from biomethane and (2) underlying gas commodity
- Chain-of-custody for environmental attributes is required, but physical delivery is not required
- Utilities must have sufficient safeguard to prevent double counting, including between jurisdictions
- Gas must meet the definition of RNG
- Utilities must maintain records of transactions. Requirements of quarterly reporting are under consideration
- BCUC has jurisdiction over verification, compliance, and enforcement, including utilities' compensation for selling RNG

These requirements are sufficient to protect against double-counting of acquired renewable gas and are well-aligned with the established and successful RNG procurement programs in the US and EU.

However, to better safeguard against double-counting, and to improve fungibility across jurisdictions and end-uses, BCUC should require an electronic tracking system to support these transactions. Furthermore, this tracking system should be a non-profit third-party tracking system, such as CleanCounts,[20] which is readily available in North America and expanding for international use. Alternatively, industry-owned tracking systems run a higher risk of fraud, and regional tracking systems will never be connected to broader markets that otherwise provide fungibility and connect buyers (including the utilities themselves) to a larger supply pool, which would lower costs.

[20] https://cleancounts.org/solutions/renewable-thermal-tracking/

eNG Coalition appreciates the detail and accuracy of comments from Intervenor Group 3[21] as it pertains to this topic. Their submittal further substantiates that such principles are understood by sustainable fuels policy experts to be standard practice.

Finally, it is important to consider how the development of tracking and verification principles in this proceeding may apply to adjacent technologies in the future. Fuels and feedstocks such as hydrogen and CO_2 with differing environmental attributes will increasingly be co-mingled in transport infrastructure, and will require similar tracking regulations. Future regulations from the International Maritime Organization (IMO) and European Commission will create additional opportunities in the maritime sector where sustainable shipping fuels—produced from methane, hydrogen, and CO_2—will require the transaction of environmental attributes. These interactions will become increasingly important as markets for renewable gases and their derivatives are globalized.

Responses to Parties' Comments

BCUC Need Not Attempt to Regulate Other Jurisdictions

Intervenor group 1[22] asserts BCUC should not attempt to regulate carbon accounting processes in other jurisdictions. Indeed, BCUC must realize that it in most cases it will be impossible and impractical to force other jurisdictions to set up that specific controls around double-counting at the provincial, state, or national level. Organizations including the World Resources Institute[23] and Intergovernmental Panel on Climate Change[24] have established GHG accounting methodologies that are widely accepted and can be employed by governments, however, it remains the responsibility of individual governments to ensure accurate accounting. The potential for double-counting across jurisdictions—and especially across end-users—is solved to the fullest extent possible by the existing record-keeping requirements imposed by BCUC and the legal penalties incurred in contract violations.

In contrast, Intervenor Group 2[25] suggests that accounting of renewable gas certificates must be auditable by the province of BC. Here it is important to note that all major

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[21] See comments from Intervenor Group 3 (https://docs.bcuc.com/documents/proceedings/2025/doc_83256_c17-1-intervenergroup3-submission.pdf)
[22] See comments from Intervenor Group 1 (https://docs.bcuc.com/documents/proceedings/2025/doc_83270_c19-1-intervener-group-1-submission.pdf)
[23] https://ghgprotocol.org/standards-guidance
[24] https://www.ipcc-nggip.iges.or.jp/public/2019rf/index.html
[25] See comments from Intervenor Group 2 (https://docs.bcuc.com/documents/proceedings/2025/doc_83264_c18-1-intervener-group-2-submission.pdf)

programs for clean fuel procurement are successfully utilizing third-party auditors—not government agencies—as their primary means of compliance.[26] Indeed, moving this responsibility to the government itself would impose undue burden on taxpayers without adding any additional level of security, and would be misaligned with existing policy precedent.

Current Allowance of Out-of-Province RNG Aligns with Widespread Policy Precedent

Furthermore, Force of Nature Alliance (FoNA) asserts in the comments of Intervenor Group 2 that BCUC should not allow out-of-province RNG as currently envisioned, but instead should establish international agreements or a "government-to-government framework that prevents double counting and clearly assigns where the emissions reduction is counted." Doing so would again be misaligned with globally established and successful procurement practices. eNG Coalition's comments above, as well as those from Intervenor Group 3, demonstrate that this change in program is not necessary.

Conclusion

This is a critical moment for BC to advance the use of emerging clean fuel technologies such as e-NG, in this case through clarifying definitions and solidifying tracking and verification methodologies within BCUC regulation. eNG Coalition's comments in this Proceeding reflect strategies and policies developed by other states and global leaders in decarbonization. This presents an opportunity for BCUC to create a favorable policy environment which signals that the time is right for commercial deployment and production of advanced fuels like e-NG.

We look forward to collaborating with BCUC and other stakeholders to ensure that the clean fuels sector contributes meaningfully to decarbonization, and that BC remains at the forefront of innovating and developing energy technology. Thank you for your consideration of these comments. We are happy to provide further information and remain eager to engage in discussions on these important matters.

Sincerely,

/s/
Rafik Ammar
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e-NG Coalition
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[26] Examples include but are not limited to U.S. EPA's Renewable Fuel Standard, California Low Carbon Fuel Standard, and EU Renewable Energy Directive.