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September 20, 2022

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Ms. Sara Hardgrave, Acting Commission Secretary

Dear Ms. Hardgrave:

Re: British Columbia Utilities Commission (BCUC) Inquiry into the Acquisition of Renewable Natural Gas (RNG) by Public Utilities in British Columbia (Inquiry) Phase 2
FortisBC Energy Inc. (FEI) Submissions on Questions in the Inquiry Phase 1 Report

On July 28, 2022, the BCUC issued its Decision and Order G-212-22 on Phase 1 of the Inquiry. Also on July 28, 2022, the BCUC issued its Phase 1 Report which invited parties to make submissions on issues raised by parties in Phase 1 of the Inquiry and Order G-213-22, establishing a regulatory timetable for Phase 2 of the Inquiry.

FEI notes that the summary of issues for Phase 2 submissions in Section 8 of the Decision and Order G-212-22 differs from the summary of submissions sought in Section 9 of the Phase 1 Report. The following are the submission of FEI on BCUC questions as set out in Section 9 of the Phase 1 Report.

FEI appreciates the BCUC's inquiry into the acquisition of RNG. FEI submits that the Greenhouse Gas Reduction (Clean Energy) Regulation (GRR) has been an effective regulation enabling the reduction of GHG emissions through the acquisition of biomethane (RNG) and submits that the BCUC should not recommend a narrowing of the regulation that would effectively limit FEI from accessing RNG outside of BC. The acquisition of hydrogen, lignin and synthesis gas (syngas), as enabled by the GRR, provides an avenue for BC based industrial emissions reductions. The pairing of the environmental attributes of these low carbon energy sources with conventional natural gas to produce low carbon gas will require both legislative changes and applications to the BCUC. FEI expects that the BCUC will be able to make informed decisions on the acquisition of hydrogen, syngas and lignin and distribution of the resulting low carbon gas based on the merits of the evidence when FEI files related applications.

Question 1:

[Therefore, given the nature of the delivery of RNG, for the purposes of interpreting the GRR the Panel finds that Renewable Natural Gas is acquired in each of these scenarios: ...]¹

- **Conventional Natural Gas is acquired and an appropriate quantum of Environmental Attributes that are associated with the production of biomethane are acquired separately.**

[I]n the case of an acquisition as described in the bullet above, clarification is required regarding the specific attributes of the acquired Environmental Attribute. In Phase 2, the Panel invites parties to provide submissions on what specific attributes or criteria those alternate Environmental Attributes must have, how those Environmental Attributes can be verified and how customers can be assured of their integrity.

FEI Submissions:

The GRR describes the acquisition of RNG, within certain parameters, as a class of prescribed undertakings. For this class of prescribed undertakings, the GRR does not prescribe any specific attributes of the acquired environmental attribute associated with the production of biomethane. In FEI's respectful submission, the BCUC does not have jurisdiction to impose any additional requirements for the acquisition of RNG to be a prescribed undertaking under the GRR.

The areas of consideration raised by this question are all relevant to ensure that the acquisition of environmental attributes lead to specific, identifiable, incremental and exclusive claims to GHG reductions that can be paired with the energy supplies of gas providers. These considerations must be made with a high degree of alignment with policy makers to ensure that attributes indeed contribute toward provincial and federal GHG policies and accounting frameworks. FEI believes that direction from policy makers on these considerations through policies and regulations is essential to support any guidelines from the BCUC. FEI also recognizes the importance of this Inquiry in proactively addressing these issues in order to bring further clarity to policy makers.

Question 2:

Given the GRR does not specify a Carbon Intensity (CI) requirement for RNG, nor is the CI of RNG provided in BC's Low Carbon Fuel Standard (LCFS), should any maximum CI be established for acquired Environmental Attributes arising from the production of biomethane?

FEI Submissions:

The BCUC should not establish a maximum carbon intensity for RNG under the GRR, nor does the BCUC have the jurisdiction to do so. The establishment of a CI level for RNG is a matter for the Province to determine. From a BC Carbon Tax standpoint, the CI of RNG is assumed to be zero. For this reason, a CI maximum requirement for RNG under the GRR has no carbon tax impact on ratepayers.

¹ FEI has added the content in square brackets from page 25 of the Phase 1 Report for context.

Further, under an emission cap scheme, as proposed in the Province's CleanBC Roadmap to 2030 (Roadmap), the mechanism for carbon accounting favours low CI RNG. Acquiring low CI RNG can allow the utility to meet an emissions cap with less RNG than it would with higher CI RNG. In other words, the relative price of carbon reduction is lower per GJ when the CI is lower, and therefore, it is in the best interests of the utility to acquire low CI RNG to lower cost to its ratepayers.

Question 3:

Should the BCUC consider any fugitive methane emissions that may be associated with the production of biomethane and/or the delivery of RNG?

FEI Submissions:

Fugitive methane emissions are a key consideration of the lifecycle CI of any energy supply. Best practices to determine lifecycle carbon intensity always considers an estimation of fugitive methane emission releases or abatement whenever relevant. When accounting for GHG emissions associated with the conventional natural gas and RNG it acquires, FEI accounts for emissions on a lifecycle basis. More specifically, when calculating the CI of a particular source of RNG, these emissions are considered and included when appropriate.

However, the GGRR does not prescribe any parameters on the acquisition of RNG that would require the BCUC to consider fugitive methane emissions when considering whether an acquisition of RNG is a prescribed undertaking.

Question 4:

Are there certain Environmental Attributes other than those derived from the production of biomethane, that when combined with what is Conventional Natural Gas, produce RNG? (Scenario 1)

FEI Submissions:

No. FEI agrees with the determinations of the Phase 1 report that RNG is acquired in the following manner:

Therefore, given the nature of the delivery of RNG, for the purposes of interpreting the GGRR the Panel finds that Renewable Natural Gas is acquired in each of these scenarios:

- *biomethane is acquired with its associated Environmental Attributes – as, for example, in the case of FEI's biomethane purchase agreements; and*
- *Conventional Natural Gas is acquired and an appropriate quantum of Environmental Attributes that are associated with the production of biomethane are acquired separately.*

In either case, the acquired product is Renewable Natural Gas for the purpose of the GGRR. [emphasis added]

Question 5:

Do Environmental Attributes arising from a “Clean or Renewable Resource”, as that term is defined in the CEA, when combined with Conventional Natural Gas, give rise to RNG? (Scenario 2)

FEI Submissions:

No. Please refer to the response to Question 4 above.

Question 6:

If those Environmental Attributes described in scenarios 1 and 2 above do not give rise to RNG, do they reduce the GHG emission profile of the associated Conventional Natural Gas?

FEI Submissions:

Yes. Though legislative amendments would be required, FEI is exploring pairing Environmental Attributes with conventional natural gas to produce lower carbon gas. Enabling the acquisition of Environmental Attributes in this way would be one more tool that FEI could employ to meet BC’s GHG reduction targets, potentially lowering costs to FEI’s ratepayers, and would support the long-term goal of transitioning FEI’s existing natural gas network to low carbon fuels.

While the GRR is silent on the pairing of Environmental Attributes with conventional gas, thereby reducing the CI of conventional natural gas, FEI believes that this is the intention of including hydrogen, lignin and syngas in the regulation. As with biomethane, the acquisition of hydrogen, lignin and syngas will result in the avoidance of the acquisition of conventional natural gas. For example, conventional natural gas has a lifecycle CI of approximately +59 kgCO₂e/GJ, and therefore, when a unit (GJ) of lignin is produced at a customer’s² premise that customer avoids a unit of conventional natural gas and has reduced carbon emissions by 59 kgCO₂e. FEI would then purchase from that customer the Environmental Attributes, and the customer would then be deemed to not have reduced carbon emissions by 59 kgCO₂e. This is a carbon reduction Environmental Attribute that has value. FEI would pair this carbon reduction Environmental Attribute with an existing unit of conventional natural gas which results in a 0 CI GJ of conventional natural gas (+59 kgCO₂e/GJ - 59 kgCO₂e/GJ = 0 kgCO₂e/GJ).

Other examples of pairing Environmental Attributes with conventional natural gas to produce lower carbon gas include acquiring conventional natural gas supply from specific producers, well-sites or gathering facilities that use low carbon technologies like carbon capture and sequestration to reduce the emissions associated with the extraction and processing of raw natural gas into commodity natural gas.

Supporting amendments to legislation would be required to enable this regime. For example, the Province would need to amend the *Carbon Tax Act* to exempt natural gas from the carbon tax where it is paired with Environmental Attributes.

² In this case the customer would be a kraft pulp mill.

Question 7:

If Natural Gas is combined with Environmental Attributes that are associated with a process or method that reduces atmospheric CO₂, but does not result in RNG, for example carbon capture and storage, what is the GHG emission profile of that resultant gas?

FEI Submissions:

As discussed in the response to Question 6 above, conventional natural gas has a lifecycle CI of approximately 59 kgCO₂e/GJ. Of this value, approximately 49 kgCO₂e is from the combustion of natural gas and 10 kgCO₂e is from the extraction, processing and transmission of natural gas or the 'upstream' emissions. The change in GHG emissions depends on the technologies employed and the emissions sources targeted. For example, CCS could be employed on gas processing facilities which would address a share of the upstream emissions associated with the lifecycle CI of conventional natural gas. CCS could also be used in downstream 'burner-tip' applications such as on a large industrial boiler which would reduce the combustion emissions of the gas, a larger overall share of the lifecycle carbon intensity.

Question 8:

How can the integrity of Environmental Attributes purchased by BC public utilities be assured and what is the BCUC's role, if any, with respect to double-counting, compliance and enforcement?

FEI Submissions:

FEI believes a path that makes use of contractual assurances can support the integrity of Environmental Attributes. This places the onus on the purchaser and supplier of RNG and it does not require additional compliance oversight from the BCUC.

Through its RNG supply agreements with RNG suppliers, FEI is the sole owner of all Environmental Attributes, including the GHG reductions associated with RNG throughout the duration of the contract. GHG reductions may not be claimed by any other entity other than FEI, and therefore, cannot be used in compliance with any other GHG reduction policy or program outside of BC without FEI's consent. No other province or state is counting the GHG reductions from RNG supplied to FEI and the environmental benefits will be recognized in British Columbia.

FEI bears the responsibility to assure the integrity of any Environmental Attributes acquired by way of contract under the GRR and oversight is provided by the Minister under sections 18(4) and 18(5) of the CEA.

Question 9:

BCSEA states:

In BCSEA's view, biomethane is a gas mixture that can be readily distinguished (including chemically) from the conventional natural gas mixture.

We invite further submissions on how biomethane is physically distinguished from Conventional Natural Gas and the significance and consequences of this difference, particularly as it relates to the acquisition of RNG.

FEI Submissions:

The methane in biomethane and conventional natural gas are indistinguishable at a molecular level as they are both methane, CH₄. However, the conventional natural gas and biomethane delivered to FEI are not pure methane and contain other molecules provided they meet the specifications of upstream transporters and BC gas transmission and delivery systems. While there may be differences in the composition of conventional natural gas and biomethane delivered to FEI, the differences are small and FEI takes measures to ensure that the gas it delivers to its customers is accounted for and billed based on the energetic quality (heat value) of the gas. Therefore, the differences do not have any significance or consequences when it relates to the acquisition of RNG.

Question 10:

The CEC submits that:

A related issue is whether or not a public utility can or should acquire GHG Environmental Attributes outside of the Prescribed Undertakings described in the GGRR. For instance, a question for the Commission could be to what extent should a public utility acquire Environmental Attributes as an asset, and could the utility acquire this asset and keep the costs for achieving this greater level of GHG environmental attributes (i.e. GHG reductions) in a deferral account for use in future years. Acquiring GHG reductions earlier, rather than later, creates additional environmental benefits.

We invite submissions on CEC's comments.

FEI Submissions:

While FEI is considering small scale pilots of acquiring low carbon gas to develop new commercial structures and agreements, it is not considering acquiring Environmental Attributes outside of the GGRR for compliance to policy frameworks until direction is provided by the Province on the role those attributes could have in meeting FEI's GHG reduction obligations. Until such time, acquiring these Environmental Attributes would create risk for FEI's ratepayers if specific Environmental Attributes were determined to be outside of compliance or accounting regimes as determined by the Province.

Question 11:

CBA submits:

For example, this decoupling of environmental attributes is an approach that is used in the California Low-Carbon Fuel Standard. RNG projects can use book-and-claim accounting to keep track of the ownership and transfer of RNG without tracking the physical fuel. The decoupled environmental attributes represent the ownership and transportation of RNG without physically tracing it. RNG injected into a pipeline must maintain evidence of chain-of-custody by California Air Resources Board accredited LCFS third parties. Once the environmental attribute is decoupled and purchased, the physical gas is considered conventional natural gas [sic] and can no longer be claimed as RNG by the producer. This prevents double counting.

We invite submissions on CBA's comments and welcome intervener evidence, if warranted, on the approach taken by California and other jurisdictions including whether, or how, it is inconsistent with the treatment of Renewable Natural Gas under the GRR.

FEI Submissions:

FEI believes that, as the RNG market continues to grow and evolve across North America, common practices, guidelines and standards to account for and track RNG molecules will emerge, similar to how such practices, guidelines and standards have developed for the trading of conventional gas and renewable electricity. The book and claim system is one method to account for RNG molecules that could work in BC. However, again, this will require involvement and approval by policy makers to ensure that accounting is consistent with provincial policy frameworks and with GHG accounting standards.

Question 12:

MoveUp submits that:

The utility workforce represented by the union has a vital interest in ensuring that FEI achieves a soft landing through the period of transition that is now underway in earnest. Their careers and livelihoods depend on it. FEI's ability to source sufficient non-fossil gas to meet evolving standards is critical to that soft landing, and it must be given the tools to accomplish it.

We submit that the GRR is similarly aimed at guiding gas utilities through these transitions and should be interpreted and applied to enable success. It should be seen as a tool to serve societal purposes, including providing a pathway to mitigate economic dislocation as we pursue our collective climate goals.

MoveUp also submits that:

One objective of energy utility regulators at this juncture should be to enable the survival of the natural gas distribution sector, and its transition to a sustainable future.

We invite submissions on these MoveUp comments.

FEI Submissions:

FEI agrees with the perspective of MoveUp and is committed to a gainful and orderly clean energy transition for its employees and customers. As discussed in the Pathways to 2050 report,³ an energy transition that includes a key role for the gas system is a more practical, affordable and resilient pathway to decarbonization in BC and ensuring that the system is viable while transitioning to deliver low carbon energy should be a key objective of policy makers and regulators.

Question 13:

We also invite submissions on whether recommendations should be made to the Provincial Government to prohibit unbundling of Environmental Attributes – or the notional delivery of Renewable Natural Gas – under certain circumstances. Such circumstances may include:

- **Biomethane injected in the distribution system of an applicant upstream of all potential customers of Renewable Natural Gas**
- **Biomethane injected in the distribution system of an applicant downstream of all potential customers of Renewable Natural Gas**
- **Biomethane injected in the pipeline system of a third party upstream of an applicant's distribution system**
- **Biomethane injected in the distribution system of a third party that is downstream of the applicant's distribution system**
- **Biomethane injected in a transmission or distribution system of a third party that is not connected in any way to the applicant's distribution system.**

Further, what relevance, if any, does the province, state or country in which the biomethane is manufactured have? We invite submissions, and evidence where warranted, from parties on this topic.

FEI Submissions:

No, the BCUC should not recommend a change to the GGRR to the Province that would preclude FEI from acquiring RNG in any of the scenarios set out in the question. FEI's acquisition of RNG that is injected into the interconnected pipeline system anywhere within or outside of BC, and delivered by displacement, reflects long-standing industry standard practice for the production and delivery of natural gas and electricity, including clean electricity. Continued acceptance of this practice is necessary for the development of RNG and hydrogen

³ Pathways For British Columbia to Achieve Its GHG Reduction Goals, Online: [https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/guidehouse-report.pdf?#:~:text=\(FortisBC\)%20developed%20its%20Clean%20Growth,BC%27s%20electricity%20and%20gas%20infrastructure](https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/guidehouse-report.pdf?#:~:text=(FortisBC)%20developed%20its%20Clean%20Growth,BC%27s%20electricity%20and%20gas%20infrastructure).

supply markets in North America and is critical for FEI's ability to acquire a cost-effective portfolio of RNG supply in time to meet provincial GHG reduction targets.

Limiting this practice and FEI's ability to acquire RNG would ultimately impose increased costs on customers and limit FEI's ability to reduce its emissions, challenging the ongoing viability of the natural gas system. As such, FEI would vigorously oppose any such recommendations.

Question 14:

Section 10 of the GRR may suggest that lignin, synthesis gas and hydrogen are not considered by the GRR to be Renewable Natural Gas. We therefore seek submissions on this matter, including the following:

- 1. Does the definition of Renewable Natural Gas include synthesis gas, lignin and hydrogen?**
- 2. Can gas derived from synthesis gas, lignin and hydrogen be notionally delivered or unbundled?**

FEI Submissions:

FEI submits that the GRR is clear that lignin, synthesis gas and hydrogen are not considered to be RNG.

However, FEI considers that the Environmental Attributes from natural gas consumption displaced by the production and use of synthesis gas, lignin and hydrogen should be able to be acquired by the utility per the GRR and included as part of the utility's renewable and low carbon gas portfolio, which could be delivered to different customers.

Question 13:

The Panel invites submissions, and evidence if warranted, from parties on any other matter they consider relevant to this Inquiry.

FEI Submissions:

FEI has no further submissions at this time.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy