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September 12, 2022

Metro Vancouver Regional District Metrotower III, 4515 Central Boulevard, Burnaby, B.C. V5H 0C6

Attention: Mr. Roger Quan

Dear Mr. Quan:

Re: FortisBC Energy Inc. (FEI)

Revised Renewable Gas Program Application – Stage 2 (Application)

Response to the Metro Vancouver Regional District (Metro Vancouver) Information Request (IR) No. 2

On December 17, 2021, FEI filed the Application referenced above. In accordance with the amended regulatory timetable established in British Columbia Utilities Commission Order G-165-22A for review of the Application, FEI respectfully submits the attached response to Metro Vancouver IR No. 2.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary

Registered Parties



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5.0 Reference: FURTHER AMENDMENT TO THE GGRR,

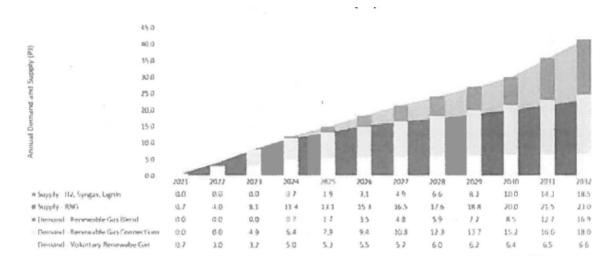
Exhibit B-25, Section 1, MetroVan IRs 1.2 and 1.3 GGRR Volumetric
Cap

RENEWABLE GAS CONNECTIONS,

Exhibit B-17, Section D, BCUC IRs12.2, 14.1, 16.2 Greenhouse Gas Reductions from FEI Customers

On page 122 of the Application, FEI provides Figure 8-3 as shown below:

Figure 8-3: Forecast Volumes of Renewable Gas Supply, Customer Demand and Allocation to Sales Customers (PJ)



In response to MetroVan IR1 1.2 and 1.3, FEI states:

Sections 4(3.8)(b), 4(3.9), 6(d), 7(2)(c), 8(1)(c) and 10 of the GGRR put a volumetric limit on the amount of renewable natural gas, hydrogen, syngas, and lignin a public utility can acquire.

The limit in place today is 31,000,000 GJ.

In its response to BCUC IR1 12.2, FEI states:

If the Renewable Gas Connections service is not approved and tailored to the new residential construction sector as proposed [...]. In a scenario which assumes that provincial building stock turnover is approximately 2 percent per year and none of these new buildings connects to the gas system, resulting in FEI losing 2 percent per year of its residential and customers to be 20 PJ or 18 percent lower than it would be if the Renewable Gas Connections service was approved. With respect to Renewable Gas load only, FEI does not expect the total volume of Renewable



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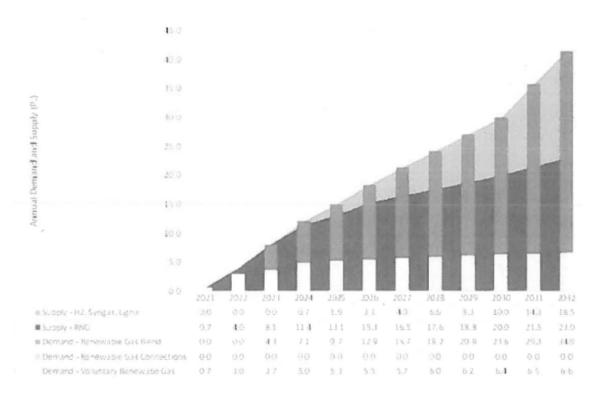
Gas sold to customers would diminish if there was not a Renewable Gas Connections service.

In its response to BCUC IR1 14.1, FEI states:

If the rate for the Renewable Gas Connections service equaled the weighted average cost of Renewable Gas Supply, FEI's forecast demand would not materialize because new residential builders would be unwilling to connect their homes to the gas system.

In its response to BCUC IR1 14.1, FEI provides an updated forecast of Renewable Gas Connections customers if the LCG Charge were set equal to the Renewable Gas weighted average cost of supply per GJ, shown below:

Revised Figure 8-3: Forecast Volumes of Renewable Gas Supply, Customer Demand and Allocation to Sales Customers (PJ)



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5.1 Assuming the following:

15 16 The proposed rate for the Renewable Gas Connections service is not approved;

17 18 The Voluntary Renewable Gas Connections Service and Renewable Gas Blend Service is approved;

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 FEI's expected greenhouse gas emission reductions from key GHG mitigation strategies other than Renewable Gas, such as energy efficiency



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in buildings, energy efficiency and electrification in industry, and carbon capture, are assumed constant, given that the approval of the Renewable Gas Connections service should not materially impact these items;

- The total volume of Renewable Gas sold would not diminish if the Renewable Gas Connections is not approved, as confirmed by FEI; and that
- The provincial government does not raise the volumetric limit for acquisition of renewable gas, as imposed by the GGRR;

Please confirm that FEI would reduce their throughput by 20 PJ by 2030, and correspondingly reduce their customer's greenhouse gas emissions by 997,400 tonnes CO2e in 2030 [0.04987 tonnes CO2e/GJ x 20 PJ x 1,000,000 GJ/PJ], based on the materials that FEI has previously provided.

5.1.1 If not, please provide corrected calculations based on the assumptions noted above.

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Response:

- This question as posed is outside the scope of this proceeding as determined by Order G-165-22A. Order G-165-22A identifies that this proceeding is focused on the RNG program design, the service offerings available, pricing of those offerings, and RNG supply and demand through to 20 2028.
- If the question is re-framed to understand the load out to 2028, and FEI uses the hypothetical scenario posed in the question, uses the assumptions provided in the question then mathematically FEI arrives at the reduced throughput of just under 20PJ and emissions would be reduced by 997,400 tonnes CO2e.
 - FEI clarifies that, over the next five years, FEI does not expect the total volume of Renewable Gas acquired for customers would diminish if there was not a Renewable Gas Connections service, as the resulting decline in throughput would occur over time and FEI will need to acquire significant volumes of Renewable Gas in the short term regardless. However, in the longer term, FEI may not need to acquire as much Renewable Gas without Renewable Gas Connections. Please refer to the response to BC Hydro IR2 2.6 where FEI discusses how it expects to take all necessary steps to meet the Province's GHG emission targets, with or without Renewable Gas Connections.

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5.2 Based on the calculation in IA 5.1 above, please confirm that not approving the Renewable Gas Connections Service, while approving the Voluntary Renewable Gas Connections Service and Renewable Gas Blend service, would result in <u>a</u> decreased amount of greenhouse gas emissions from FEI customers during



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the period 2023 to 2030, compared to if the current proposed rate for the Renewable Gas Connections Service is approved.

5.2.1 If not, please explain why not.

Response:

Not confirmed. Please refer to the response to BC Hydro IR2 2.6, where FEI discusses how it expects to take all necessary steps to meet the Province's GHG emission targets, with or without

8 Renewable Gas Connections.



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6.0 Reference: RENEWABLE GAS CONNECTIONS

Exhibit 8-17, Section 3, BCUC IR 13.1

Discussion Paper - Proposed Requirements for Boilers

In response to BCUC IR1 13.1, FEI states:

The two primary options for customers wanting a low-carbon energy solution are gas (in the form of Renewable gas) and electricity (generated from "clean" sources). RNG provides the energy for furnaces/boilers on a large and small scale, while electricity powers heat pump (geo and air source), fuel cells or baseboards, on a large and small scale.

Metro Vancouver's "Boilers and Process Heaters - Proposed Amendments to the Boilers and Process Heaters Emission Regulation Bylaw No. 1087, Discussion Paper, June 2022", states:

The proposed amendments include the following:

- 6. To minimize the discharge of NOx, any new or replacement boilers and process heaters fueled by natural gas or propane would have to be ultra-low NOx (emissions of NOx not to exceed 20 mg/m³). Currently, the NOx emission limit for new or modified boilers and process heaters fueled by natural gas or propane is 60 mg/m³;
- 7. [...]
- 8. By January 1, 2040, emissions of NOx from all existing boilers and process heaters fueled by natural gas or propane would not be allowed to exceed 20 mg/m³;
- 6.1 Please discuss how the proposed amendments raised for discussion in the Discussion Paper could impact FEI's application, specifically discussing the differential cost burden that Metro Vancouver's requirements may impose on customers that use RNG, instead of electricity, to meet stringent municipal low carbon requirements.

Response:

The proposal would require customers to replace their gas boilers with electric ones and therefore leads to an electrification approach, as opposed to a decarbonization approach focussed on reducing CO2 emissions. In its discussions with manufacturers, FEI understands that boilers that would meet the proposed emissions limit are not currently manufactured. Furthermore, manufacturers are dedicating the majority of their research and development resources to produce high efficiency-low carbon intensity technologies, rather than focusing on low NOx technology. As it may take several years to have commercially available products that meet the new specifications, Metro Vancouver's policy direction creates barriers for residents and businesses to have access to RNG and leads to an inconsistent approach to accessing gas



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- 1 service across British Columbia. Further, leaving customers no choice but to replace gas boilers
- 2 with electric boilers (if available) could impose a significant cost burden, as building owners would
- 3 be required to convert their existing natural gas boiler to an electric boiler, in addition to paying
- 4 for electrical infrastructure upgrades.
- 5 However, Metro Vancouver's policy direction does not change FEI's proposals in its Application.
- 6 Even if some local governments pursue an electrification only approach, FEI needs an RNG
- 7 service for new residential connections so that it can continue to add customers in municipalities
- 8 that are open to a diversified approach to GHG emission reductions. Further, as the impacts of
- 9 an electrification-only approach become more clear, the position of local governments may
- 10 change, and FEI needs to have an RNG service for new residential connections that can be
- 11. A separation of the electric of the interpretation of the electric of the
- 11 considered by elected officials in their ongoing deliberations on energy policy. Please refer to the
- response to BUC IR2 56.2.3, which describes the various activities FEI is undertaking to increase
- 13 support for renewable gases and the gas system, along with the proposals in this Application.

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Discussion Paper could impact competition between RNG and electricity.

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Response:

6.2

The proposal eliminates RNG as a low carbon solution for customers and any competition between RNG and electricity as the proposed NOx levels cannot be met with gas boilers. In other words, the proposed amendments will remove RNG as an option and only leave electric equipment as an alternative.

Please discuss how the proposed amendments raised for discussion in the

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