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May 16, 2022

BrightSide Solutions
2855 128 Street
Surrey, B.C
V4A 3W9

Attention: Mr. Mark Grist

Dear Mr. Grist:

**Re: FortisBC Energy Inc. (FEI)
Revised Renewable Gas Program Application – Stage 2 (Application)
Response to the BrightSide Solutions Inc. Information Request (IR) No. 1**

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-103-22, FEI respectfully submits the attached response to BrightSide Solutions Inc. IR No. 1.

For convenience and efficiency, FEI has occasionally provided an internet address for referenced reports instead of attaching lengthy documents to its IR responses. FEI intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

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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1 **1. Reference Introduction and Overview – Section 1.1**

2 i. The support letters are largely from property developers, builders, restaurant
3 associations, and building equip suppliers. Were any NGV customers asked to
4 provide letters of support?
5

6 **Response:**

7 Please refer to the response to BC Transit IR1 13.a.
8
9

10 ii. Who were the 7 NGV users that participated in the market research? Did any of
11 these participants support a two-tiered pricing system?
12

13 **Response:**

14 To encourage participation in the market research, FEI committed to ensuring all participants
15 would remain anonymous; therefore, it cannot disclose the above-referenced 7 NGV users.

16 FEI did not receive feedback through the survey on the pricing proposals in the Application. At
17 the time of the market research, FEI had not yet determined the pricing concept for the Voluntary
18 Renewable Gas service for NGV customers.
19

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1 **2. Reference Section 1.2 - Permanent Rate Request**

2 i. FEI notes that “...for consistency and fairness RS7 customers should have the
3 same ability to access the Renewable Gas Program as other customers do under
4 Rate Schedules 1B, 2B, 3B, 5B and 11B.” Why is this consistency and fairness not
5 afforded to NGV users?
6

7 **Response:**

8 The above quote from the Application is referring to ensuring that Rate Schedule (RS) 7
9 customers have the same *access* to the existing Renewable Gas Program as other customers.
10 Prior to BCUC Order G-3-22 approving RS 7B, as proposed in the Application, RS 7 customers
11 could not enroll in the Renewable Gas Program due to the lack of an associated biomethane rate
12 schedule. This resulted in the inconsistent treatment of RS 7 customers. In contrast, NGV
13 customers have always had, and will continue to have, access to the program and the ability to
14 purchase Renewable Gas through one of the applicable rate schedules.

15

16

17

18 ii. Has FEI refused RNG supply to transportation users in the past? If so, why?
19

20

21 **Response:**

22 Please refer to the response to BC Transit IR1 5.a.

23

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1 **3. Reference Section 1.3 - Approvals Sought**

2 i. New Customer Additions - If new customer additions are required to use 100%
3 RNG, and the acquisition price of RNG is less than the cost of electricity, why
4 should these customers have a lower price than NGV users? (At \$25 for RNG, at
5 90% efficiency that translates to 10 cents per kWh which is competitive with
6 electricity) (Tier 1 residential electricity is 9 cents and Tier 2 is 14 cents)

7 ii. For existing residential and commercial customers, that take a minimum of 1%,
8 why do these customers need to have a lower price than NGV customers when
9 the rate impact is negligible on their bills.

10 iii. For existing residential and commercial customers who voluntarily choose to take
11 higher levels of RNG, why do they need to have a lower rate than NGV users?
12 Their energy costs are already well below electricity, their blended rates would
13 continue to be below electricity and they have no switching costs. Why not simply
14 mandate a Renewable Portfolio Standard onto this customer class.

15
16 **Response:**

17 Please refer to Section 7.4.2 of the Application for the rationale behind the rate under the
18 Renewable Gas Connections service.

19 Please refer to Section 7.4.3.2 of the Application, and the responses to BC Transit IR1 4.a and
20 BCSEA IR1 4.15, for the rationale for FEI's proposal that NGV customers pay the average cost
21 of Renewable Gas acquisition. Please also note that, as referenced in the CleanBC Plan, the BC-
22 LCFS will provide an economic incentive for low carbon fuels in the transportation sector.

23 Residential and commercial customers who receive Renewable Gas through the Renewable Gas
24 Blend pay for Renewable Gas through the S&T LC rider. Contrary to the assertion made in the
25 question, the S&T LC rider is designed to recover the full cost of Renewable Gas acquisition from
26 those who pay it, plus the costs not fully recovered from the Renewable Gas Connections service,
27 and the Voluntary Renewable Gas service for non-NGV sales customers. The bill impact for these
28 customers will be limited primarily because the volume of Renewable Gas delivered per customer
29 is limited. As the percentage of Renewable Gas grows, so too will the bill impact.

30 Please also refer to the response to BCUC IR1 13.7 for a comparison of electricity and gas costs
31 for home heating.

32

33

34

35 iv. Is RNG a superior product to regular RNG? Should conventional use customers
36 not have to pay some level of contribution for their use of RNG? Why give away a
37 superior product for the price of conventional natural gas, especially when the cost
38 of the alternative electricity is higher than the cost of RNG?

39

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1 **Response:**

2 FEI assumes that BrightSide had intended the question to be “Is RNG a superior product to
3 regular NG?” On this basis, FEI clarifies that the environmental attributes associated with RNG
4 have value above conventional natural gas when they can be monetized. NGV users have this
5 ability, whereas FEI’s other sales customers do not.

6

7

8

9 v. Is the proper comparison for the price of RNG in the built environment the cost of
10 electricity?

11

12 **Response:**

13 The cost of equipment, installation, building improvements and operating costs (electricity or
14 Renewable Gas) are all components that are compared when making decisions on how to heat
15 a building with a low carbon energy source. At the end of the day, what matters to consumers is
16 that they get the energy they require at a price (all in) that meets their needs. Please refer to the
17 response to BCUC IR1 13.7 for a comparison of operating costs between electricity and
18 Renewable Gas for home heating.

19

1 **4. Reference Section 4.4.1 Decarbonization Sectors in BC**

2 i. It is noted that transportation applications result in >40% of the province's GHG
3 emissions and that use of natural gas in the Heavy Duty (HD) transport sector
4 results in reduced emissions. GHG emission reductions for renewable natural gas
5 use in HD applications is measured by the CI of diesel (94.76 gms CO₂e/MJ¹)
6 versus the CI of RNG which is 13.07 for R-LNG². The relative advantage R-LNG
7 is 81.69 gms of CO₂e/MJ of energy. Use of the same FVBG sourced RNG in a
8 heating application has a CI of 10.5 versus conventional natural gas at a CI of
9 51.9³. This provides a reduction of only 41.4 gms CO₂e/MJ. The use of a MJ of
10 RNG in a transport application results in a GHG reduction that is almost twice the
11 GHG reduction when used in a heating application. Given these numbers, does
12 FortisBC recognize that the highest and best use for RNG is in Heavy Duty
13 transportation? Why or why not.
14

15 **Response:**

16 FEI does recognize the environmental benefits of providing Renewable Gas in the heavy duty
17 transportation sector. As noted in FEI's response to Brightside IR1 3.i, the BC-LCFS provides the
18 economic incentive to adopt low carbon fuels. Emissions reduction goals for natural gas utilities
19 such as FEI are separate from the transportation pathway, so that Renewable Gas provided by
20 FEI to the transportation sector will not contribute to the CleanBC goal for natural gas utilities of
21 a 47 percent reduction in GHG emissions from the use of conventional natural gas.
22

23
24

25 ii. In consideration of the answer to 4.4.1 above, why then is Fortis proposing rates
26 that would incent the use of the RNG into heating applications and create
27 economic barriers to the use of RNG in transportation applications?
28

29 **Response:**

30 FEI is not creating economic barriers for the use of Renewable Gas in transportation applications.
31 As referenced in the CleanBC Roadmap, the BC-LCFS will provide the economic incentive for
32 low carbon fuels in the transportation sector and not natural gas utilities such as FEI. Please also
33 refer to the response to BC Transit IR1 4.a.
34

¹ Value from Low Carbon Fuel Requirement regulation.

² Fraser Valley Biogas sourced RNG converted to R-LNG at FortisBC Tilbury LNG plant.

³ EIA Report 2019c.

1 **5. Reference Section 5.5.1- Customers with Mandated Emissions Reductions**

2 i. How does the cost of RNG as a “drop in” fuel compare to the cost of converting to
3 use electricity for transportation in HD applications?
4

5 **Response:**

6 FEI is unable to respond to this question for two reasons. First, currently there are no battery
7 electric vehicles available on a commercial basis for use in medium and heavy duty transportation
8 applications. The only available technology that is broadly available for the medium and heavy
9 duty transportation sector is natural gas technology. Second, factors unique to each fleet, such
10 as size of the vehicle, geographic location of driving routes, engine size and operating hours can
11 affect the cost of adopting electricity in medium and heavy duty transportation applications, so a
12 meaningful comparison of the use of RNG versus the use of electricity in this transportation sector
13 is not possible.

14
15

16
17 ii. Why is it necessary to subsidize price to heating application customers that have
18 mandated emission reduction targets.
19

20 **Response:**

21 Please refer to the responses to BCUC IR1 28.1 and 28.3.
22
23

24
25 iii. What is the breakeven cost of RNG to compete with electricity in a residential
26 heating application.
27

28 **Response:**

29 Please refer to the response to BCUC IR1 13.7.
30
31

32
33 iv. What is the breakeven cost of RNG to compete with electricity in a commercial
34 heating application.
35

36 **Response:**

37 Please refer to the responses to BCUC IR1 13.8 and 13.9.
38

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1 **6. Reference Section 5.7 – NGV Customers**

2 i. FortisBC states that NGV customers showed minimal interest. Is it not true that
3 Fortis’s NGV sales team advised customers that supply was not available to the
4 transportation sector?
5

6 **Response:**

7 Please refer to the response to BC Transit IR1 5.a.

8

1 **7. Reference Section 5.7.2 BC’s Low Carbon Fuel Standard**

2 “Today, NGV customers can access the BC-LCFS credits, while the building sector
3 customers cannot, suggesting a need to align the offering for NGV customers with existing
4 policy.”

5 i. Different Customers and Customer classes have different economics and
6 business cases for use of natural gas and or RNG. For example some customers
7 have subsidized appliances, some have low tax rates, some high, etc. Why is this
8 specific Provincial government regulation singled out for the RNG program design?
9

10 **Response:**

11 FEI did not intend to single out the BC-LCFS, but rather, to highlight that there are different policy
12 considerations between customer classes. Ultimately, in designing the revised Renewable Gas
13 Program, FEI considered the policy direction in the CleanBC Roadmap for natural gas utilities to
14 reduce GHG emissions from natural gas combustion. In particular, as described on page 104 of
15 the Application, any GHG emission reductions resulting from the sale of Renewable Gas to NGV
16 customers will not contribute towards the achievement of this public policy target. As such, if
17 Renewable Gas were sold to NGV customers at a discount to the cost of acquisition, the effect
18 would be to increase the costs borne by all other ratepayers as more Renewable Gas would need
19 to be purchased to meet the policy objective.

20
21

22
23 ii. How is the different rate charged for RNG consistent with the Bonbright Principles
24 of Ratemaking? (“Bonbright’s Principles of Public Utility Rates are often
25 summarized as three: (1) revenue requirement, (2) fair apportionment of costs
26 among customers, and (3) optimal efficiency. These principles have generally
27 been read as focusing on the utility’s revenue requirement, fair apportionment of
28 costs among customer classes, and optimal efficiency in consumption of electricity
29 as a commodity. In addition, Bonbright instructed that rates must be simple,
30 understandable, acceptable, free from controversy in interpretation, stable, and
31 non-discriminatory.”⁴)
32

33 **Response:**

34 Please refer to the responses to BCUC IR1 13.2, 16.2, 23.4 and 30.1 and BCSEA IR1 4.15 for a
35 discussion of ratemaking principles in relation to the rate setting mechanisms proposed in the
36 Application.

37

⁴ https://psc.ky.gov/pscecf/2020-00174/dspenard@strobobarkley.com/11022020033905/2020.11.02_kpc_16_attachment_rabago_and_vaolva_revisiting_bonbright.pdf.

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1
2

3 iii. To date large volume NGV customers have purchased natural gas under standard
4 commercial class tariffs as part of the “Natural Gas Class of Service”. Commercial
5 customers have multiple different uses of natural gas. Why are NGV customers
6 being singled out for discriminatory pricing?

7 iv. Is the proposed pricing for NGV users based on “value of service” principles
8 typically applied in monopoly industries? Should it not be based on “fair
9 apportionment of costs” per Bonbright?

10

11 **Response:**

12 Please refer to the responses to BCUC IR1 13.2, 16.2, 23.4, 30.1, and BCSEA IR1 4.15.

13

14

15

16 v. Would Fortis charge customers who use natural gas to generate products with high
17 margins more than customers who use natural gas to produce products with low
18 margins?

19 vi. Would Fortis charge customers who pay low income tax rates (and therefore
20 generate more profits) more than customers who pay high income tax rates?

21 vii. Would Fortis charge customers who receive subsidies to invest in higher efficiency
22 appliances (Such as high efficiency boilers) more than customers who use other
23 appliances?

24

25 **Response:**

26 In this Application, FEI is not proposing to set the price of Renewable Gas to NGV customers
27 based on a customer’s margin, income tax rate, or whether the customer has received subsidies
28 to invest in higher efficiency equipment. FEI is proposing to set the price for Renewable Gas to
29 NGV customers at FEI’s cost of acquisition, not at a premium.

30

31

32

33 viii. Where is the line drawn regarding when it is applicable to discriminate across
34 customers in the same class of service?

35

36 **Response:**

37 Please refer to the responses to BCSEA IR1 4.15 and BCUC IR1 13.2 and 30.1.

38

39

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1 ix. With the tightening of the LCFS CI targets, what will be the impact on NGV
2 customers' ability to continue to earn credits. Will the credit use decline over time?
3 What year will credits no longer be available for conventional NG. Would addition
4 of RNG allow NGV customers to continue to generate credits? Would this also
5 allow higher penetration of NGV using RNG and lower GHG emissions?
6

7 **Response:**

8 Please refer to the response to BC Transit IR1 2.b.

9

1 **8. Reference 5.7.2 - BC's Low Carbon Fuel Standard**

2 i. BC's LCFS program provides a system where RNG users can earn LCF Credits
3 and be incented to use RNG instead of high carbon fuels. By discriminating on
4 price will the incentive provided under the LCFS be effectively transferred from
5 transportation companies to FortisBC rate payers?
6

7 **Response:**

8 FEI disagrees with the premise of the question that FEI's proposed Renewable Gas Program
9 offerings discriminate on price for Renewable Gas for transportation customers. FEI will be
10 providing Renewable Gas at the cost of acquisition, just as it provides natural gas used as CNG
11 at the cost of acquisition. Renewable CNG consumers will continue to receive BC-LCFS credits,
12 which is an effective incentive for transportation companies to adopt Renewable CNG at the cost
13 of acquisition, and none of the value of the BC-LCFS credit will be transferred to FEI.

14
15

16
17 ii. Will this result in less use of RNG in transportation applications?
18

19 **Response:**

20 Please refer to the response to Brightside IR1 8.i. Demand for RNG in transportation applications
21 is a function of a number of different factors, including the:

- 22
- Cost of RNG;
 - Value of the BC-LCFS credits;
 - Forecasted changes to the value of BC-LCFS credits as the stringency of the policy
25 increases to a 30 percent carbon intensity reduction; and
 - Price of other low-carbon fuel substitutes and the associated infrastructure and capital
27 costs.

28 FEI believes that there will still be robust demand for RNG in transportation due to its low carbon
29 intensity, competitive cost and the policy developments driving aggressive GHG reductions, as
30 found in the CleanBC Roadmap.

31
32

33
34 iii. Does this not frustrate the intent of the LCFS? Discuss why or why not?
35

36 **Response:**

37 No, FEI's proposed offerings for NGV customers under the revised Renewable Gas Program do
38 not frustrate the intent of the BC-LCFS as the CleanBC Plan identifies the BC-LCFS as the

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1 economic lever to reduce emissions in the transportation sector. Therefore, FEI is proposing to
2 sell RNG at the cost of acquisition, similar to all other fuels registered in the BC-LCFS.

3

4

5

6 iv. Should FortisBC have the power to use discriminatory pricing to create an unfair
7 adjustment to the intended workings of a Provincial law and regulation?
8 (R&LCFRR Act and R&LCFRR Regulation)

9

10 **Response:**

11 FEI disagrees with the premise of the question, as it is not proposing to use pricing as a way to
12 create an unfair adjustment to the intended workings of a provincial law or regulation.

13 FEI is not legally required to subsidize the cost of fuel used in transportation, nor is requiring NGV
14 customers to pay the weighted average cost of Renewable Gas supply discriminatory. Instead,
15 FEI has proposed a rate setting mechanism framework that considers both the cost of supply and
16 the value to customers. Please also refer to BCUC IR1 13.2 and BCSEA IR1 4.15 for a further
17 discussion on pricing and regulatory principles.

18 The BC-LCFS incentivizes NGV customers to become fuel suppliers in order to generate credits
19 for sale in the carbon credit market. As such, NGV customers can generate credits by switching
20 from diesel to CNG or LNG reflecting the lower carbon content of these fuels. NGV customers
21 have an opportunity to further increase the credits generated by switching to Renewable Gas.
22 Once credits have been generated, and validated by the Province, NGV customers can sell these
23 credits in the credit market, thus offsetting a portion of their fuel costs.

24

1 **9. Reference Section 6.3.2 – Short and Long Term Supply**

2 FEI indicates that the RNG supply pool will need to be around 30 PJ in order to meet
3 CleanBC 2030 targets.

4 i. How much would the subsidized RNG price add to the annual costs for residential
5 and commercial and industrial customers over the period from 2023 to 2030
6

7 **Response:**

8 FEI disagrees with the characterization of the RNG price as being “subsidized”.

9 Based on FEI’s forecast of NGV demand for Renewable Gas embedded in the analysis supporting
10 the Application, if NGV customers were to pay the existing price for Renewable Gas under the
11 existing Program to 2030 instead of the forecast cost of supply, \$103 million in costs would be
12 transferred to other ratepayers. In calculating this amount, FEI has assumed that the LCG Charge
13 for Voluntary Renewable Gas customers continues to be set at the cost of gas per GJ, plus the
14 carbon tax per GJ, plus \$7.

15
16

17

18 ii. If all parties were treated fairly with respect to RNG pricing, and NGV RNG demand
19 was 1.5PJ, of the total of 30 PJ, how much would the subsidized RNG price add
20 to the annual per customer costs for residential and commercial and industrial
21 customers over the period from 2023 to 2030?
22

23 **Response:**

24 The proposals in this Application are fair and as such, FEI cannot calculate the requested
25 information.

26 NGV customers continue to have access to acquire Renewable Gas from FEI and are only being
27 asked to pay the acquisition cost of Renewable Gas, not to subsidize FEI’s other sales customers.

28
29

30

31 iii. Is the difference in the amount of program subsidy required, sufficient to justify
32 discriminatory pricing within the “Natural Gas Class of Service” and to disregard
33 the Bonbright principles of fair rate making for utilities?
34

35 **Response:**

36 FEI disagrees with the premise of the question, as it is not proposing discriminatory pricing for
37 NGV customers.

38 Please refer to the responses to BCUC IR1 13.2, 16.2, 23.4 and 30.1 and BCSEA IR1 4.15 for a
39 discussion of Bonbright and regulatory principles.

40

1 **10. Reference Section 7.3 - Renewable Gas Program Design**

2 i. Would a comprehensive program that did not discriminate against transportation
3 users meet all program objectives? Why or why not?
4

5 **Response:**

6 The revised Renewable Gas Program does not discriminate against transportation users. Please
7 refer to the responses to BCUC IR1 13.2 and BCSEA IR1 4.15.
8

9

10

11 ii. Voluntary program versus non-voluntary program. Given that potential demand
12 from Transportation applications is in the range of 1.5 PJ in 2022/2023, and that
13 this is voluntary demand, why is FortisBC discouraging this use at the same time
14 as it is taking actions to force involuntary demand from non-NGV customers?
15

16

16 **Response:**

17 FEI is not discouraging use of Renewable Gas for transportation applications through the design
18 of the revised Renewable Gas Program. Please refer to Section 7.4.3.2 of the Application, and
19 the response to BC Transit IR1 4.a, for the rationale for why FEI proposes that NGV customers
20 pay the average cost of Renewable Gas acquisition.
21

22

23

24

24 iii. Is it fair to charge voluntary users a higher price than involuntary users?
25

26

26 **Response:**

27 Please refer to the response to BCUC IR1 13.2 for a discussion of pricing for voluntary and non-
28 voluntary customers under the revised Renewable Gas Program. Customers receiving the
29 Renewable Gas Blend service will pay for the full acquisition cost of Renewable Gas, as will NGV
30 customers. Customers, whether NGV or non-NGV customers, have the option to opt-in to the
31 Renewable Gas Program under one of the Voluntary Renewable Gas offerings in order to receive
32 Renewable Gas.
33

1 **11. Reference Section 7.4.3.2 - “GHG emission reductions resulting from the sale of**
2 **Renewable Gas to NGV customers will not contribute to achieving the GHG**
3 **reduction policy described in the CleanBC Roadmap”.**

4 i. Does the CleanBC program have objectives for reducing GHG emissions from the
5 transportation sector?
6

7 **Response:**

8 Yes, the CleanBC program includes objectives for reducing GHG emissions from the
9 transportation sector. In particular, the CleanBC Roadmap highlights the BC-LCFS as a key driver
10 and one of the most successful approaches to reducing GHG emissions, and calls for: (1)
11 increasing the stringency of the BC-LCFS; (2) expanding its applicability to marine and aviation
12 fuels; and (3) considering new compliance options, such as negative emissions technologies.⁵

13 In 2023, the provincial government will release a Clean Transportation Action Plan, which will set
14 out actions to reduce transportation emissions in the Province by 27 to 32 percent (from 2007) by
15 2030.⁶ At this time, the provincial government has not released further information regarding how
16 these emission reductions will be achieved. However, the CleanBC Roadmap provides a general
17 overview of how these emissions will be reduced through targeted actions in line with advice from
18 the Climate Solutions Council. These actions include:

- 19 • Reducing distance travelled
20 • Increasing mode shift
21 • Improving vehicle efficiency
22 • Adopting zero-emissions vehicles
23 • Using clean fuels⁷
24
25

26
27 ii. Will the price increase for NGV users under the revised RNG program not result in
28 less uptake of RNG in the transport sector?
29

30 **Response:**

31 No, FEI does not believe the proposed price of Renewable Gas for NGV customers will result in
32 less demand in the transport sector as the BC-LCFS already incentivizes NGV customers to
33 purchase RNG. NGV customers using CNG and LNG continue to be eligible for Part 3 fuel
34 supplier status under the BC-LCFS. Part 3 fuel suppliers that reduce the carbon intensity of their

⁵ CleanBC Roadmap to 2030, https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_roadmap_2030.pdf, page 34.

⁶ CleanBC Roadmap to 2030, https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_roadmap_2030.pdf, page 34.

⁷ CleanBC Roadmap to 2030, https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_roadmap_2030.pdf, page 34.

1 fuel relative to the benchmark carbon intensity identified in the BC-LCFS can generate credits,
2 which can be sold in the credit market.

3
4

5

6 iii. What percentage of GHG emissions are generated from transportation?
7

8

Response:

9 According to the provincial GHG inventory, the GHG emissions from transportation account for
10 41 percent of the total emissions in British Columbia.⁸

11

12

13

14 iv. What percentage of GHG emissions are generated from building heating
15 applications.
16

17

Response:

18 According to the BC provincial GHG inventory, approximately 8,306 kilotonnes of CO₂e of
19 emissions were generated from buildings in the Province in 2019 (the last year of published
20 statistics).⁹ This is equal to 12 percent of the emissions for British Columbia in that year. Under
21 the CleanBC Roadmap, FEI would be obligated to reduce a proportionate share of these
22 emissions, and those of the industrial sector, by approximately 47 percent by 2030 to meet the
23 GHG emissions cap for natural gas utilities.

24

25

26

27 v. Will the use of RNG in a transportation application result in greater GHG reductions
28 than the use of RNG in a heating application?
29

30

Response:

31 Please refer to the responses to BC Hydro IR1 1.6, 1.9 and 1.10.
32
33

34

35

36

35 vi. Is the climate impact of a given amount of GHG reduction the same, no matter
36 which sector it was generated in?

⁸ <https://www2.gov.bc.ca/gov/content/environment/climate-change/data/provincial-inventory>.

⁹ <https://www2.gov.bc.ca/gov/content/environment/climate-change/data/provincial-inventory>.

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1

2 **Response:**

3 GHG reductions from all sectors, across the world, will have a climate impact.

4

5

6

7 vii. Does the Heavy-Duty transportation sector have viable low carbon alternatives?
8 Are electric solutions economically viable for this sector? Can use of biofuels be
9 increased or are blend wall restrictions limiting further uptake of these fuels? How
10 does this compare to low carbon alternatives available in heating application?

11

12 **Response:**

13 FEI believes that while there are low carbon alternatives for this sector, they are limited. Battery
14 electric and hydrogen fuel cell heavy duty trucks are not commercially available today, but they
15 are in development. FEI is unable to comment on the economic viability of low carbon technology
16 solutions other than natural gas and Renewable Gas.

17 FEI is not directly familiar with the availability and cost of biofuels, such as biodiesel, for this
18 sector. However, transportation customers have indicated that biodiesel is more expensive than
19 CNG.¹⁰

20 As indicated in Appendix B-2 of the Application, NGV customers view CNG and R-CNG as a
21 bridge fuel to battery electric and hydrogen technology over the next five to ten years, that
22 electrification of transportation is not applicable to all sectors, and that hydrogen is not a realistic
23 alternative in the short term.

24

¹⁰ Appendix B-2, pages 9 and 12.

1 **12. Reference Section 8.2 – Example Assumptions**

2 i. Is FEI forecasting the long-term acquisition cost of RNG to be \$20? If not, what is
3 the actual forecast for RNG supply pool pricing for the years from 2022 through
4 2030?

5
6 **Response:**

7 Please refer to the response to BCUC IR1 35.1 for the average cost of acquisition for Renewable
8 Gas.

9
10

11
12 ii. How will FEI keep the long-term cost from rising to \$31 which is the price cap that
13 is known in the market?

14
15 **Response:**

16 The price cap mechanism has been in place since the institution of the existing Renewable Gas
17 Program, and therefore, has been known to the market for some time. While this information may
18 be known to potential suppliers, their pricing must ultimately be competitive with other suppliers
19 in order to reach an agreement with FEI.

20 As one of the largest purchasers of RNG in North America, FEI is approached by a number of
21 suppliers regarding potential supply agreements and, as a result, is able to negotiate with
22 suppliers who provide the most reasonable cost. There is currently enough competition between
23 sellers that the cap price has not been a material factor as part of these negotiations. FEI has
24 sought to source supply from as broad a diversity of suppliers as possible in order to be able to
25 receive competitive pricing and, as a result, FEI has reached agreements with suppliers from
26 outside BC.

27

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1 **13. Reference Section 8.6 – Customer Bill Impacts**

2 i. Customer bill impact is shown for all RNG program types except NGV and T-
3 Service. Please provide a revised Figure 8-6 that also shows customer bill impact
4 on NGV/T-Service accounts.
5

6 **Response:**

7 There is a significant variety of T-Service and NGV customers which makes a bill impact analysis
8 similar to Figure 6-8 unlikely to be reflective of these customer classes. However, please refer to
9 the response to BC Transit IR1 11.c where FEI has estimated the annual forecast rate impact by
10 comparing the forecast acquisition cost of Renewable Gas provided in the Application with a
11 forecast of the Biomethane Energy Recovery Charge (BERC), which represents what NGV and
12 T-Service customers are currently paying for Renewable Gas.

13

1 **14. Reference Section 10 - Consultation**

2 i. Why is there no discussion of the consultation with NGV users?

3

4 **Response:**

5 Please refer to the response to BC Transit IR1 12.b.

6

7

8

9 ii. What impact will the increase in costs have on the use of RNG in transport
10 applications?

11

12 **Response:**

13 For an analysis of the net cost of Renewable Gas to NGV users, please refer to the responses to
14 City of Richmond IR1 9.2 and TransLink IR1 7.2. The analysis in the referenced IRs includes the
15 full cost recovery of Renewable Gas and the potential revenues generated from the sale of carbon
16 credits under the BC-LCFS. When the revenue from carbon credit sales is factored into the net
17 cost of both Renewable Gas and conventional natural gas, the cost of the former may be lower.

18 The impact of the proposed rates representing the full cost recovery of Renewable Gas to NGV
19 users is unknown as the impact will vary for each NGV user due to variables such as ability to
20 monetize credits under the BC-LCFS, corporate objectives and emission targets.

21

22

23

24 iii. Were the 7 stakeholders contacted supportive of the pricing changes?

25

26 **Response:**

27 FEI cannot find a reference to seven particular NGV stakeholders in Section 10 of the Application
28 as referenced in the preamble. FEI interprets the question to be referring to the seven NGV
29 customers referred to in Appendix B-2 of the Application.

30 The interviews with the seven stakeholders referenced in Appendix B-2 occurred prior to the
31 release of the CleanBC Roadmap; therefore, the proposed Renewable Gas price structure was
32 not yet finalized or considered by these stakeholders. Please also refer to the response to BC
33 Transit IR1 12.b.

34

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1 **15. Reference Appendix B1**

2 i. Slide 32 – Fortis’s research on cost recovery shows that customers say costs
3 should be split equally. Why is FEI proposing an unequal split of cost recovery,
4 with NGV customers paying more?

5
6 **Response:**

7 FEI is not proposing an unequal split of cost recovery as between NGV and other customers. The
8 cost recovery mechanisms contained in the Application ensure that FEI achieves full recovery of
9 the cost of any Renewable Gas volumes sold to residential, commercial, and industrial sales
10 customers from the rates charged to residential, commercial, and industrial sales customers.
11 Similarly, the proposal ensures that FEI achieves full recovery of the cost of any Renewable Gas
12 volumes sold to NGV and T-Service customers from NGV and T-Service customers.

13
14

15
16 ii. Why is there no discussion of the market research results from discussions with
17 Transportation use customers in the application?

18
19 **Response:**

20 Please refer to the response to BC Transit IR1 12.b.

21

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1 **16. Overarching Question re Impact on Supply and RNG Pricing**

2 i. If NGV customers are required to pay a higher price for RNG and are treated as
3 second class customers within the program, will this not incent NGV customers to
4 secure their own RNG supply directly? With several large end use customers and
5 FortisBC all competing for the same limited RNG supply resources, will this not
6 result in an increase in supply pricing for RNG for both the Fortis program and for
7 NGV customers? Who will bear the costs of the higher RNG prices? Is it possible
8 that by excluding NGV users from the preferred price, FEI ends up with higher
9 costs to all ratepayers?

10

11 **Response:**

12 FEI disagrees with the use of the term “second class customers” in the first sentence of the
13 question and the use of the term “preferred price” in the last sentence of the question. Please
14 refer to Section 7.4.3.2 of the Application, and the response to BC Transit IR1 4.a, for the rationale
15 for FEI’s proposal that NGV customers pay the average acquisition cost of Renewable Gas.

16 NGV customers have benefited from programs enabled by the GGRR, such as ratepayer-funded
17 incentive programs to offset the higher cost of natural gas-powered vehicles and vessels, as well
18 as ratepayer supported CNG and LNG fueling facilities for which rates are designed to recover
19 less than 100 percent of the cost of service of those facilities.

20 FEI cannot predict if NGV customers will procure their own Renewable Gas supply as a result of
21 FEI’s proposal to recover the full acquisition cost of Renewable Gas from sales of Renewable
22 Gas. The decision to self-supply Renewable Gas is likely dependent on the cost for the NGV
23 customer to procure the supply, the terms and conditions of the supply contract and the carbon
24 intensity of the Renewable Gas, and how this compares with FEI’s Renewable Gas portfolio. In
25 the scenario where NGV customers self-supply, this would not result in a difference in the total
26 demand for RNG which would drive up supply pricing – NGV customers can choose to either
27 purchase the RNG from FEI or from an alternate source if that source is less costly.

28 Regardless, to mitigate Renewable Gas supply cost fluctuations, FEI has secured long-term off-
29 take agreements for Renewable Gas supply which effectively locks in pricing over a time horizon
30 in the range of 10 to 20 years. Therefore, FEI does not believe that Renewable Gas costs for FEI
31 will increase beyond any built-in contractual inflation factors. However, if FEI were to continue to
32 sell Renewable Gas to NGV customers at less than full acquisition cost, this could further increase
33 total Renewable Gas demand and possibly inflate the cost of additional Renewable Gas supply
34 required by FEI in the future.

35

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1 **17. Overarching Question re the “Natural Gas Class of Service”.**

2 On November 28, 2013, the Lieutenant Governor in Council approved Special Direction
3 No. 5 to the Commission, B.C. Reg. 245/2013, relating to FEI’s LNG and CNG services.
4 Special Direction No. 5 states, amongst other things, that the Commission must “treat
5 CNG service and LNG service, and all costs and revenues related to those services, as
6 part of the utility’s natural gas class of service” On August 7, 2014, the BCUC issued Order
7 G-111-14. This order approved FEI’s application to have CNG and LNG customers
8 become part of the Natural Gas Class of Service.

9 i. Given that the BC Government, FEI and the BCUC all approved the inclusion of
10 NGV customers into the Natural Gas Class of Service, why is FEI now proposing
11 that NGV customers be excluded from rate offerings available to all other
12 customers withing the Natural Gas Class of Service?
13

14 **Response:**

15 Special Direction No. 5 that directed the BCUC to treat CNG and LNG customers as part of the
16 utility’s natural gas class of service was made to allow FEI to collect from all of its customers the
17 monetary incentives (grants) issued to CNG and LNG (NGV) customers for them to acquire CNG
18 and LNG vehicles. Additionally, the direction allows FEI to construct and operate CNG and LNG
19 stations for these customers at less than full cost recovery from the CNG and LNG customers.
20 Since 2013, the Direction has allowed for grants and allowances to incent CNG and LNG adoption
21 that have been recovered from all non-bypass customers.

22 FEI is not excluding NGV customers from acquiring Renewable Gas from the utility. FEI is only
23 proposing that NGV customers pay the full acquisition cost of Renewable Gas if they choose to
24 do so.

25