



**Sarah Walsh**  
Director, Regulatory Affairs

**Gas Regulatory Affairs Correspondence**  
Email: [gas.regulatory.affairs@fortisbc.com](mailto:gas.regulatory.affairs@fortisbc.com)

**Electric Regulatory Affairs Correspondence**  
Email: [electricity.regulatory.affairs@fortisbc.com](mailto:electricity.regulatory.affairs@fortisbc.com)

**FortisBC**  
16705 Fraser Highway  
Surrey, B.C. V4N 0E8  
Tel: (778) 578-3861  
Cell: (604) 230-7874  
Fax: (604) 576-7074  
[www.fortisbc.com](http://www.fortisbc.com)

April 18, 2023

My Sea to Sky  
Box 668  
Squamish, BC  
V8B 0B8

Attention: Eoin Finn, Research Director, B.Sc., Ph.D., MBC

Dear Eoin Finn:

**Re: FortisBC Energy Inc. (FEI)**  
**Revised Renewable Gas Program Application – Stage 2 (Application)**  
**Response to My Sea to Sky (MS2S) Information Request (IR) No. 1 on FEI's**  
**Rebuttal Evidence to MS2S and the Brattle Group (Brattle)**

---

On December 17, 2021, FEI filed the Application referenced above. In accordance with the amended regulatory timetable established in Exhibit A-47, FEI respectfully submits the attached response to MS2S IR No. 1 on FEI's Rebuttal Evidence to MS2S and Brattle.

If further information is required, please contact the undersigned.

Sincerely,

**FORTISBC ENERGY INC.**

***Original signed:***

Sarah Walsh

Attachments

cc (email only): Commission Secretary  
Registered Parties

FortisBC Energy Inc. (FEI or the Company) Revised Renewable Gas Program Application – Stage 2 (Application)	Submission Date: April 18, 2023
Response to My Sea to Sky (MS2S) Information Request (IR) No. 1 on FEI Rebuttal Evidence to MS2S and the Brattle Group (Brattle)	Page 1

1 **ISSUE 1: Price elasticity – reliability of demand projections**

2 **Reference:** [FEI Rebuttal Evidence to the My Sea to Sky and the Brattle Group](#)  
3 [\(Brattle\) Evidence Regarding Elasticity of Demand](#) <sup>1</sup> **(the Rebuttal**  
4 **Evidence)**

5 On P.2, Q.3, FEI states:

6 FEI’s evidence in this proceeding concludes that it is impractical to perform a  
7 robust price elasticity analysis for renewable natural gas. This is because price  
8 elasticity studies require demand and price data that reflect market forces with  
9 consumer demand being driven by the pricing of competitive options. However,  
10 this kind of market data is not available for voluntarily purchased RNG. This is  
11 because, under the various Biomethane Energy Recovery Charge (BERC) rate  
12 setting mechanisms, the price of RNG has not been allowed to rise and fall with  
13 demand. FEI was also unable to find any third party studies that are explicitly  
14 focused on price elasticity of renewable gases <sup>2</sup>.

15 As an alternative to a price elasticity analysis, FEI surveyed its customers on RNG  
16 and conventional natural gas price differentials to gain some directional insight into  
17 their thinking.

18 The survey results indicate that **customers are sensitive to the price differential**  
19 **between conventional natural gas and RNG. In other words, RNG demand is likely**  
20 **elastic when considered relative to conventional natural gas prices since the two**  
21 **fuels are substitutes and a customer can easily either reduce its share of RNG or**  
22 **completely opt- out of receiving Voluntary RNG service.**

23 MS2S concurs with FEI’s evidence that it is “unable to find any third party studies that are  
24 explicitly focused on price elasticity of renewable gases”. However, FEI’s voluntary sales  
25 customers do offer an opportunity to create one. These customers currently pay a fixed  
26 commodity premium of \$7 per Gigajoule for optional blends of RNG in their fossil gas  
27 supply. The commodity cost of gas for Voluntary RNG subscribers, including the RNG  
28 premium, was hiked by 24% - from \$11.83/GJ to [\\$14.718/GJ](#) <sup>3</sup> - in the 13 months interval  
29 spanning December, 2021- January, 2023. FortisBC, like other major gas utilities, does  
30 not offer RNG as a discrete product at its supply cost. So – determining the price elasticity

<sup>1</sup> [https://docs.bcuc.com/Documents/Proceedings/2023/DOC\\_70324\\_B-66-FEI-Rebuttal-Evidence-to-MS2S-Brattle.pdf](https://docs.bcuc.com/Documents/Proceedings/2023/DOC_70324_B-66-FEI-Rebuttal-Evidence-to-MS2S-Brattle.pdf).

<sup>2</sup> MS2S would counter that this is because RNG is nowhere marketed (at the retail level) separately from fossil gas (FG). Rather, FG/RNG blends are, like the proposed Renewable Gas Connections product, marketing creations that are not physically deliverable to a customer.

<sup>3</sup> <https://www.fortisbc.com/services/sustainable-energy-options/renewable-natural-gas/how-much-does-renewable-natural-gas-cost>.

FortisBC Energy Inc. (FEI or the Company) Revised Renewable Gas Program Application – Stage 2 (Application)	Submission Date: April 18, 2023
Response to My Sea to Sky (MS2S) Information Request (IR) No. 1 on FEI Rebuttal Evidence to MS2S and the Brattle Group (Brattle)	Page 2

1 of RNG as a discrete product offering would seem not to be a worthwhile exercise,  
 2 especially as most subscribers opt for only a 10% blend. FEI's [customer survey results](#) <sup>4</sup>

3

**Figure 5-7: Potential RNG Customers are Sensitive to the Premium for Renewable Gas versus Conventional Gas**



4

5 would seem to corroborate MS2S' research in showing that price elasticity for gas is more  
 6 significant than FEI seems willing to concede, or incorporate in its modelling of future  
 7 demand.

8 **Questions:**

9 1.1 Has FEI attempted to use its decade-long Voluntary Renewable Plan data store to  
 10 estimate the price elasticity applicable to this program (and validate the qualitative  
 11 results obtained from its customer surveys?)

12 **Response:**

13 FEI reiterates that the data from the existing voluntary RNG Program is not useful for estimating  
 14 the price elasticity of RNG. This is because, since the BERC rate methodology was updated in  
 15 October 2016, the price of RNG has been fixed relative to the price of conventional natural gas  
 16 regardless of variations in demand. As a result, it does not provide insight into how customers  
 17 react to different price points.  
 18

<sup>4</sup> [https://docs.bcuc.com/Documents/Proceedings/2021/DOC\\_65216\\_B-11-FEI-Stage-2-Comprehensive-Review-Application-of-Revised-Renewable-Gas-Program.pdf](https://docs.bcuc.com/Documents/Proceedings/2021/DOC_65216_B-11-FEI-Stage-2-Comprehensive-Review-Application-of-Revised-Renewable-Gas-Program.pdf) , Figure 5-7, P. 59.

1 Please also refer to FEI’s 2020 BERC Rate Methodology Comprehensive Assessment Report,<sup>5</sup>  
 2 where the BERC rate methodology was discussed extensively.

3  
4

5

6 1.2 Please provide, for each of the months of November and December of 2021, and  
 7 January, February, March and April of 2023 :

8 a) The net customer additions (i.e. the net of new subscribers and those exiting)  
 9 to the Voluntary RNG service; and

10 b) The number of customers in each of the voluntary subscription buckets at the  
 11 start of each month (i.e. those subscribing to 5%, 10% , 25%, 50% and 100%  
 12 RNG blends).

13

14 **Response:**

15 Please refer to Table 1 below which provides the net customer additions to the existing voluntary  
 16 RNG Program for each of the months of November and December 2021, and January through  
 17 March of 2023. As the month of April is not yet complete, FEI is unable to provide the net customer  
 18 additions for April 2023.

19 **Table 1: Net Customer Additions to FEI’s Voluntary RNG Program**

	2021		2023		
	Nov	Dec	Jan	Feb	Mar
Net Customer Additions	59	13	284	162	181

20

21 Please refer to Table 2 below for the number of customers in each of the voluntary subscription  
 22 buckets. FEI notes that its reporting system is designed to report customer enrolments as at the  
 23 end of each month. Therefore, the number of customers for each of the requested months are  
 24 based on the number of customers reported in FEI’s system at the end of the previous month. As  
 25 an example, the number of customers for November 2021 in Table 2 below represents the number  
 26 of customers enrolled as of October 31, 2021. Please also note that large commercial customers  
 27 taking RNG service under Rate Schedule 11B nominate RNG volumes instead of selecting a  
 28 percentage. For consistency in this response, these customers have been included in the table  
 29 below at the nearest 5 percent increment.

<sup>5</sup> [https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/gas-utility/200812-fei-berc-g-133-16-compl-comprehensive-assmt-rpt-ff.pdf?sfvrsn=89664c21\\_2](https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/gas-utility/200812-fei-berc-g-133-16-compl-comprehensive-assmt-rpt-ff.pdf?sfvrsn=89664c21_2).



FortisBC Energy Inc. (FEI or the Company) Revised Renewable Gas Program Application – Stage 2 (Application)	Submission Date: April 18, 2023
Response to My Sea to Sky (MS2S) Information Request (IR) No. 1 on FEI Rebuttal Evidence to MS2S and the Brattle Group (Brattle)	Page 4

1

**Table 2: Number of Customers in Each RNG Percentage**

Percentage RNG	2021		2023			
	Nov	Dec	Jan	Feb	Mar	Apr
5%	2800	2788	3654	3819	3917	4003
10%	5032	5009	5142	5177	5187	5214
20%	1	1	2	2	2	2
25%	723	731	961	986	998	1018
40%	1	1	1	1	1	1
45%	0	0	0	0	1	1
50%	421	441	615	633	646	663
55%	2	2	2	1	1	1
80%	0	0	1	1	1	1
100%	514	580	919	958	986	1017

2

3

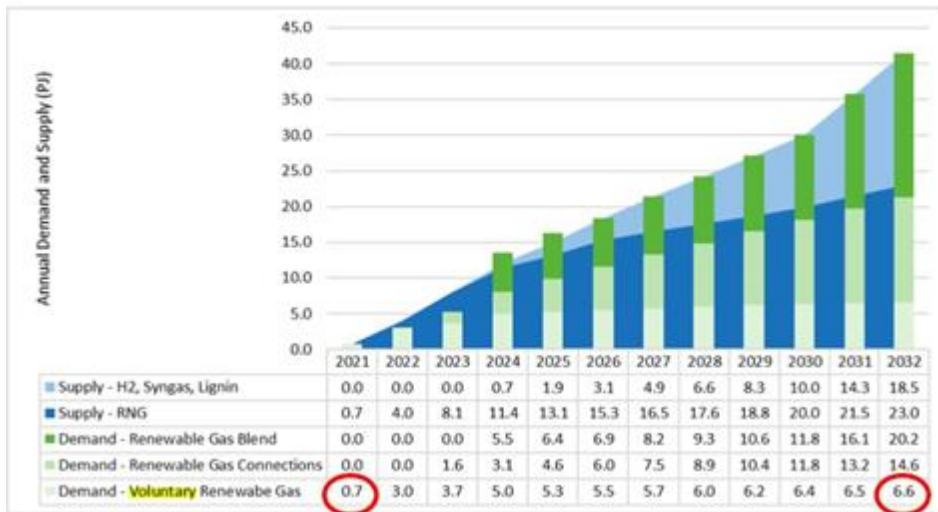
1 **ISSUE 2: Price elasticity – Demand Projections**

2 **Reference:** [FEI Rebuttal Evidence to the My Sea to Sky \(MS2S\) and the Brattle](#)  
 3 [Group \(Brattle\) Evidence Regarding Elasticity of Demand](#) <sup>6</sup>

4 The Rebuttal Evidence refers to Figure 8.3 of FEI’s application (reproduced below). In it,  
 5 FEI predicts a nine-fold increase in Voluntary Sales gas demand over the 2021-2032  
 6 interval.

7 P.6 of the Rebuttal Evidence states that, “the demand from the Voluntary Renewable Gas  
 8 customers is forecast to increase from 0.7 PJ in 2021 to 6.6 PJ in 2032”. This despite the  
 9 projected doubling of the cost of gas over that interval.

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



10

11 The Rebuttal Evidence states:

12 Using Dr. Finn’s assumptions of a 10 percent RNG Blend and 90 GJ annual  
 13 consumption would require the addition of approximately 22,000 new Voluntary  
 14 residential customers to the program over the 10 year period.

15 Over the past decade, the Voluntary Renewable gas program has struggled to achieve a  
 16 1% (about 10,000 customers) market share. This is shown in Figure 2.2 of the application  
 17 below, which also shows a significant decline in participation over the past two years –  
 18 years in which the issue of climate change and exodus from fossil gas to renewable  
 19 energies would have been expected to incentivise new signups to the RNG program. Most  
 20 of these customers subscribe to the 10% blend. In the BERC and LTGRP submissions,  
 21 FEI predicts that the cost of gas service will double over the coming decade.

<sup>6</sup> [https://docs.bcuc.com/Documents/Proceedings/2023/DOC\\_70324\\_B-66-FEI-Rebuttal-Evidence-to-MS2S- Brattle.pdf](https://docs.bcuc.com/Documents/Proceedings/2023/DOC_70324_B-66-FEI-Rebuttal-Evidence-to-MS2S-Brattle.pdf).

1 In the Rebuttal Evidence, FEI says that:

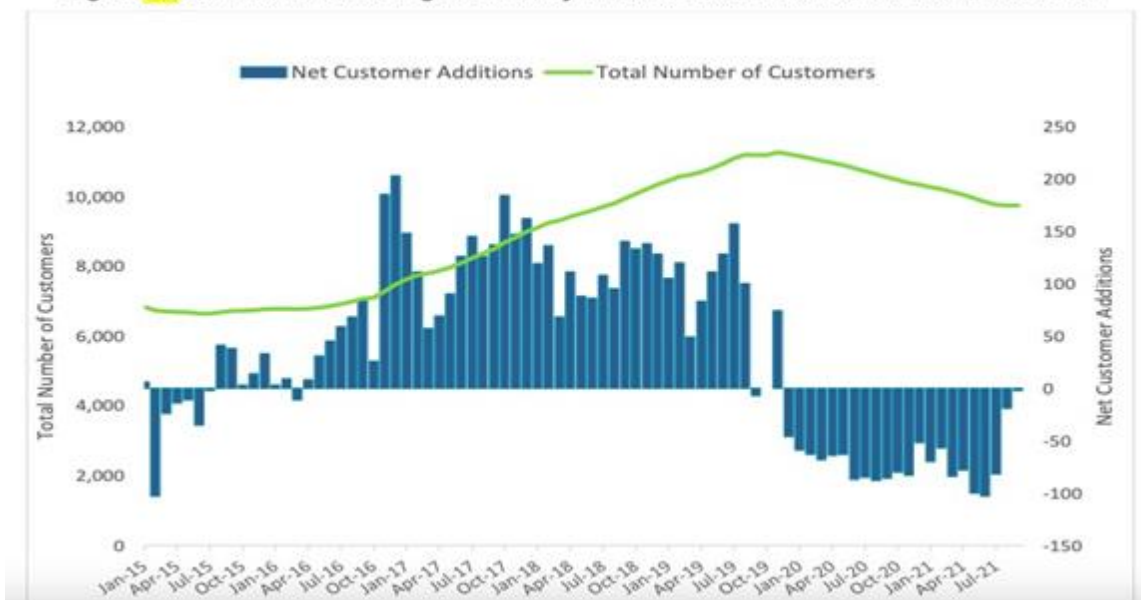
2 “Price is not the only determinant for RNG demand: As discussed earlier in this  
 3 Rebuttal Evidence, RNG demand stems from its environmental attributes and  
 4 customers’ desire to reduce their GHG emissions. Further, demand for RNG (and  
 5 other low carbon fuels) is also heavily influenced by government policy and its  
 6 strategy to reach the legislated GHG reduction targets. Therefore, only relying on  
 7 price elasticity numbers to forecast a decrease in demand would lead to erroneous  
 8 conclusions”.

9 Although these latter influences have only grown in the past decade, participation in the  
 10 Voluntary Renewable gas program has declined over recent years.

11 **Questions:**

12 2.1 Why would Voluntary RG demand show such a dramatic increase in the face of  
 13 rapidly rising gas service costs? Please provide the justification for this apparent  
 14 contravention of the economic principle of negative price elasticity and FEI’s own  
 15 customer survey results ?

**Figure 2-2: Renewable Gas Program Monthly Net Customer Additions and Total Customers**



16  
 17  
 18 **Response:**

19 Figure 2-2 depicts actual program data between 2015 and mid-2021. The increase in participation  
 20 referenced in the question occurred immediately after the BERC rate was updated in order to  
 21 address declining program enrolments due to the apparent price sensitivity of the Voluntary



FortisBC Energy Inc. (FEI or the Company) Revised Renewable Gas Program Application – Stage 2 (Application)	Submission Date: April 18, 2023
Response to My Sea to Sky (MS2S) Information Request (IR) No. 1 on FEI Rebuttal Evidence to MS2S and the Brattle Group (Brattle)	Page 7

1 Renewable Gas customers. For a detailed discussion of this data, please refer to FEI's 2020  
2 BERC Rate Assessment Report and the associated IRs.<sup>7</sup>

3 FEI has previously observed that some customers, given their circumstances and/or preferences,  
4 would likely be willing to pay more than the rate for conventional natural gas in order to receive  
5 renewable gas. FEI also presented evidence that there are limits to the premium that could be  
6 charged for renewable gas beyond which customers are much less likely to enroll in the voluntary  
7 program. FEI believes that the data presented in Figure 2-2, and as discussed more broadly in  
8 the 2020 BERC Rate Assessment Report, confirms its view of the market at that time.

9  
10

11

12 2.2 On P. 7 of the Rebuttal Evidence, FEI states:

13

14 In addition, FEI's proposal to set the Low Carbon Gas Charge at the same rate charged  
15 to other gas customers not participating in the Voluntary Renewable Gas service is also  
16 based on economic principles of price elasticity (particularly the substitution effect). This  
17 is because RNG and conventional natural gas are substitutes and, if the full cost of RNG  
18 were imposed on new gas customers, the high customer cost impact means that the  
19 successful implementation of the offering may not be an economically viable option.

20

21 **Response:**

22 FEI is unable to provide a response, as MS2S has not requested any information.

23

24

25

26 2.3 Where in FEI's Voluntary Renewable gas program advertising/contracting does it  
27 inform customers that, no matter which blend option they choose to subscribe to,  
28 the blend they actually receive will be identical to their neighbours', 99% of whom  
29 are unlikely to be subscribers to the RNG program? Please provide examples of  
30 advertising or other communications where this information is communicated to  
31 customers. Please provide the specific language used communicate this fact.

32

33 **Response:**

34 Section 28 of FEI's General Terms and Conditions describe the nature of biomethane delivered  
35 to customers under FEI's existing Voluntary RNG Program. The applicable subsection is  
36 reproduced below for convenience:

<sup>7</sup> Exhibit B-4, BCUC IR1 16 through 18 series; Exhibit B-7, CEC IR1 1 and 2 series.





FortisBC Energy Inc. (FEI or the Company) Revised Renewable Gas Program Application – Stage 2 (Application)	Submission Date: April 18, 2023
Response to My Sea to Sky (MS2S) Information Request (IR) No. 1 on FEI Rebuttal Evidence to MS2S and the Brattle Group (Brattle)	Page 8

1           28. Biomethane Service

2           28.1 Notional Gas

3           Customers must recognize that the location of generation facilities will  
4           determine where Biomethane will physically be introduced to the FortisBC  
5           Energy System and that Customers receiving Biomethane Service may not  
6           receive actual Biomethane at their Premises, but may instead be contributing  
7           to the cost for FortisBC Energy to deliver an amount of Biomethane  
8           proportionate to the Customer’s Gas usage into the FortisBC Energy System.

9