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November 6, 2015

**Via Email**
**Original via Mail**

B.C. Sustainable Energy Association
c/o William J. Andrews, Barrister & Solicitor
1958 Parkside Lane
North Vancouver, B.C.
V7G 1X5

Attention: Mr. William J. Andrews

Dear Mr. Andrews:

**Re: FortisBC Energy Inc. (FEI)**

**Application for Approval of Biomethane Energy Recovery Charge (BERC) Rate Methodology (the Application)**

**Response to the B.C. Sustainable Energy Association and Sierra Club of British Columbia (BCSEA) Information Request (IR) No. 1**

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On August 28, 2015, FEI filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-147-15 setting out the Regulatory Timetable for the review of the Application and Exhibit A-4 granting an extension to the deadline for filing the IR responses, FEI respectfully submits the attached response to BCSEA IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

**FORTISBC ENERGY INC.**

***Original signed by: Michelle Carman***

***For:*** Diane Roy

Attachments

cc: Commission Secretary
Registered Parties (email only)

**1.0 Topic: Premium**

**Reference: Exhibit B-1, p.1; p.20; p.29 (Exhibit B-1-1)**

"In April of 2014, the BERC rate increased to $14.065 per Gigajoule (GJ), from $11.696 per GJ. The corresponding premium above natural gas increased to $8.11 per GJ[2]. Price of RNG less the CCRA rate + Carbon Tax. $14.065 – ($4.464 + $1.4898) = $8.111." [page 1, underline added]

"Market prices for natural gas commodity began to drop significantly in 2009 resulting in a current approved Commodity Cost Recovery Charge of $2.486/GJ. Thus, with the Carbon Tax of $1.4898/GJ included, RNG costs $10.438/GJ more than the current natural gas commodity charge today." [page 20, underlined added]

"...thus suggesting that the current premium of $10.438 per for RNG will grow." [page 29, underline added]

1.1 Please explain the price premium and why the application appears to have a figure of $8.11/GJ on page 1 and a figure of $10.438/GJ on page 20 and page 29.

**Response:**

The price premium represents the premium over conventional natural gas that RNG customers pay for biomethane.

Please refer to the response to BCUC IR 1.5.1, which corrects the CCRA rate (Commodity Cost Recovery Charge) for April 1, 2014 from $4.464 per gigajoule to $4.640 per gigajoule, resulting in a corresponding price premium above natural gas of $7.930 per gigajoule in the Application and not $8.11 per gigajoule[1].

The price premium referenced on page 1 of the Application, which is now $7.930 per gigajoule, represents the price premium calculation based on rates applicable as of April 1, 2014. The price premium referenced on page 20 of the Application of $10.438 per gigajoule represents the price premium calculation based on current rates. Therefore, the calculated price premium currently equals $10.438 per gigajoule which is $14.414 (Current approved Biomethane Energy Recovery Charge per GJ) – ($2.486 (Current approved Commodity Cost Recovery Charge per GJ) + $1.4898 (Current Carbon Tax per GJ).

[1] Section 1.1 Introduction: page 1, lines 12-14.

1.2 Footnote 2 on page 1 indicates a CCRA rate of $4.464, whereas on page 20 it gives a Commodity Cost Recovery Charge of $2.486/GJ. Please explain the difference.

**Response:**

Please refer to the response to BCSEA IR 1.1.1.

**2.0 Topic: Biomethane Variance Account**

**Reference: Exhibit B-1,**

"Second, FEI anticipates that the amount of supply on hand and the balance in the Biomethane Variance Account (BVA) will increase due to reduced demand. This would necessitate a future transfer of unsold RNG at the prevailing Commodity Cost Recovery Charge (Commodity rate or CCRA rate), which will impact non-RNG customers$_3$ , all else being equal." [page1]

"Consistent with the 2013 Biomethane Decision, FEI is proposing to begin the transfer of unsold biomethane older than 18 months each year or greater than 250,000 GJs out of the BVA to the Midstream Cost Reconciliation Account (MCRA)." [page 2]

2.1 Please confirm that the Biomethane Variance Account is denominated in dollars, not GJ.

**Response:**

Confirmed; however, there is an inventory of unsold supply that is associated with the dollars and denominated in GJ.

2.2 Please confirm, or otherwise explain, that the BVA is unaffected by any changes in the value of the stock of unsold biomethane.

**Response:**

Confirmed .

If FEI's transfer proposals are accepted, the net impact would be an opening BVA balance each year that is based on the supply of biomethane available valued at the BERC rate. That is, if FEI's transfer proposals are accepted the BVA balance will be affected by changes in the value of inventory.

Please also refer to the response to BCUC IR 1.39.1.

**3.0 Topic:**

**Reference: Exhibit B-1,**

"Thus, with this Application, FEI proposes that the BERC rate be set based on a premium above the Commission approved CCRA rate. Although this methodology may result in a BERC rate that is below the cost of RNG on a per GJ basis, FEI expects that this approach will result in maximizing the volumes sold under the RNG Program while minimizing the impact of unsold RNG on FEI customers." [Page 2]

"Specifically, FEI is proposing to change from a single rate to two BERC rates that reflect two distinct RNG service offerings:..." [Page 2]

3.1 Would FEI agree that the application raises two distinct issues: (a) whether to change the RNG Program from a cost-base rate structure to a premium over market-base rate structure, and (b) if so, what should be the size of the premium and should there be different BERC rates for Short Term Contract and Long Term Contract?

**Response:**

The question properly encapsulates the nature of the Application. However, FEI would add that the Application also supports the broader objective of growing the RNG program, which will in turn support government policy.

Please also refer to the responses to BCUC IRs 1.1.1 through 1.1.1.2.

**4.0 Topic: Size of RNG Premium**

**Reference: Exhibit B-1, s.5.2 RNG Premium Determination**

4.1 Conceptually, is the size of the premium for the Short Term Contract BERC rate ideally an amount that maximizes the revenue from sales of biomethane at the Short Term Contract rate?

**Response:**

Yes, through the maximization of sales revenue the impact on non-RNG customers is also minimized.

Please also refer to the responses to BCUC IRs 1.1.1 and 1.24.1.

4.2 Please explain why FEI chose $7.00 per GJ as the proposed size of the premium for setting the Short Term Contract BERC rate.

**Response:**

Please refer to section 5 and 7.1 of the Application and the response to BCUC IR 1.24.1.

4.3 Is FEI confident that a reduction of the BERC rate to a rate based on a premium of $7.00/GJ for small residential and commercial RNG customers is a sufficiency large reduction to lead to a reversal of the decline in RNG Program participation?

**Response:**

Please refer to the response to BCUC IR 1.24.1.

4.4 The customer feedback data indicated an optimum price point to maximize participation that is equivalent to approximately $8.00 per GJ [pages 34-35]. In

this context, please explain why FEI chose to propose a premium of $7.00 per GJ.

**Response:**

Although customers said that they were willing to pay an $8.00 premium, the enrollment data suggest that this premium is too high to attract and retain customers. Please refer to the response to BCUC IR 1.24.1 for a discussion on why FEI proposed $7.00 as the premium.

4.4.1 Is there a material difference here between optimizing participation in the RNG program and optimizing revenue from sales of RNG at the Short Term Contract BERC rate?

**Response:**

Optimizing participation in the Program (both numbers of customers and volume of RNG sold) may not optimize revenue from the sales of RNG if the Short Term Rate is set too low. .

4.5 Conceptually, is the size of the premium for the Long Term Contract BERC rate ideally an amount that maximizes the revenue from sales of biomethane at the Long Term Contract rate?

**Response:**

Yes, through the maximization of sales revenue the impact on non-RNG customers is also considered.

4.6 In its proposal for setting the Long Term Contract BERC rate, why did FEI choose to propose using a dollar per GJ discount from the size of the premium used in setting the Short Term Contract BERC rate?

**Response:**

Please refer to the response to CEC IR 1.18.1.

4.6.1 Did FEI consider proposing a premium for setting the Long Term Contract BERC rate that was based on maximizing revenue from sales at that rate, independent of the size of the Short Term Contract BERC rate?

**Response:**

FEI believes that the proposal in the application will maximize revenues. FEI did consider setting the Long Term Contract BERC rate independent from the Short Term Contract BERC rate in the form of either a fixed rate for all long term contracts (i.e. that was not set off of the Short Term Contract BERC) or negotiations on a contract by contract basis. However, FEI believes that the existing proposal in the application maximizes revenues, better meets customer needs and is administratively more efficient.

4.7 Please explain why FEI chose for the Long Term Contract BERC rate a $1.00 per GJ discount from the size of the Short Term Contract BERC rate premium, as distinct from some other amount such as $0.50/GJ or $2.00/GJ.

**Response:**

Please refer to the response to CEC IR 1.18.1.

4.7.1 If the Commission was to approve a Short Term Contract BERC rate based on a premium that was different than the proposed $7.00/GJ, say $6.00/GJ or $8/GJ, would FEI propose that the Long Term Contract

BERC rate be based on a $1.00/GJ discount or on a premium of $6.00/GJ? Why?

**Response:**

FEI believes that the Long Term Contract BERC rate should always be priced at a discount to the Short Term Contract BERC rate.

When setting the Long Term Contract rate, FEI would like to preserve the concept of providing an incentive for long term customers in the form of a lower price than that for Short Term Contract customers. Further, FEI believes that the current proposed discount, in conjunction with the current CCRA rate, provides a burner tip price point for Long Term Contract RNG (~$10.00 per GJ) that is economic for long term customers.

In the event that the Commission approves a higher premium for the Short Term Contract rate (say $8.00), it may be difficult for FEI to sell large volumes at a Long Term Contract rate based on a $1.00 discount to that price and as such, a further discount may be appropriate such that the burner tip price point for Long Term Contract RNG is approximately $10.00 per GJ.

If the Commission approved a lower Short Term Contract BERC rate, FEI believes that a discount from the lower short term rate is still required for the long term customer in order to retain the concept of a discount.

4.8 Does FEI have a proposal for determining whether, when and by what amount the premium between the Short Term Contract BERC rate and CCRA rate would be changed in the future?

**Response:**

No. Please refer to the responses to BCUC IRs 1.42.1 and 1.42.3 for an explanation.

**5.0 Topic: Market-Based Rate**

**Reference: Exhibit B-1, s.6.4 Market-Based Rate**

"In particular, large volume customers have indicated an appetite for more RNG if the pricing is more in line with their business plans." [page 44]

5.1 What is FEI's sales forecast for biomethane under the proposed Long Term Contracts if the Long Term Contract BERC rate is set based on a premium of $6.00/GJ?

**Response:**

The Long Term Contract customers FEI anticipates are those identified as "Large/ Fixed Volume/ Cogen" in Schedule 2, Appendix E of the Application. Please refer to row 22 of this schedule which provides the annual forecast per year for 2016 through 2020 using a premium of $6.00 per GJ for Long Term Contract customers.

FEI notes that it took a conservative approach when projecting potential sales volumes to this particular category of customers. Specifically, future demand for the City of Surrey and incremental demand from UBC were not included, even though both parties have expressed interest in additional purchase volumes.

5.2 Is FEI confident that if the Long Term Contract BERC rate is set based on a premium of $6.00/GJ then material quantities of biomethane will be sold under Long Term Contracts?

**Response:**

FEI believes that reducing the long term contract rate to a premium of $6.00/GJ will provide the opportunity to achieve additional quantities of biomethane sold under the Long Term Contracts. As noted in the response to BCSEA IR 1.5.1, FEI has used a conservative approach for forecasting demand in this Application.

**6.0 Topic: Marketing**

**Reference: Exhibit B-1, s.7.4 7.4 INCREASE IN CUSTOMER EDUCATION AND AWARENESS SPENDING**

"As discussed in Section 4, FEI believes that a modest resumption in spending on RNG Program awareness to a level closer to 2013 levels, in conjunction with a market based BERC rate, would support increased enrollment. Thus, FEI will resume customer awareness and education spending to $300 thousand per year, commencing January 1, 2016." [page 48]

"FEI is proposing a market-based BERC rate based on a RNG premium of $7.00 per GJ, which FEI expects will have a greater likelihood of growing demand from voluntary customers. At today's BERC rate, this would mean a decrease in the price that RNG customers will pay." [Page 45, underline added]

6.1 What marketing approach will FEI take in terms of explaining to (a) existing and (b) prospective RNG customers the fact that the price of RNG has dropped, in the event the Commission approves the application?

**Response:**

The response to BCUC IR 1.13.1 explains how FEI communicates price changes to its customers and FEI expects that it would be consistent with this approach with respect to rate changes resulting from this Application. FEI would feature the reduction in the price of RNG in its bill inserts and website, as well as discussing directly with Commercial and Industrial customers.

Please refer to the response to BCUC IR 1.43.1 for a breakdown of proposed marketing expenditures over the next 5 years which would reach both existing and new customers.

6.2 Why is FEI proposing only a "modest resumption" in spending on RNG Program awareness?

**Response:**

FEI is mindful of incurring costs to promote RNG while at the same time understands that with nearly 1 million customers, costs must be incurred to create awareness and education around a new product offering. FEI believes that the proposal to raise the marketing spend to $300 thousand strikes this balance. As discussed in section 7.4 of the Application, a $300 thousand

budget is in line with previous spending levels and, based on past experience, this budget can be used effectively to increase participation and to retain existing customers.

6.3 Has FEI done a benefit cost analysis of its spending on RNG Program awareness?

**Response:**

Please refer to the response to BCUC IR 1.43.5.

6.3.1 Did FEI's decision to cut its spending on RNG Program awareness cause larger reductions in RNG revenue than was saved by cutting the marketing budget?

**Response:**

FEI cannot accurately quantify the impact that the reduced marketing budget had on RNG Program revenues. However, as noted in the application FEI believes that the price increases in addition to the reduction in marketing spend had a negative effect on the program. Please refer to section 4.1 of the Application and the response to BCUC IR 1.23.2 for evidence of the relationship between price increases and customer participation in the program. FEI does, however, believe that, with a price the market will bear as proposed in the Application, marketing plays a significant role in program success.

6.4 Looking forward, has FEI considered the potential cost effectiveness of a substantial increase in RNG marketing to capitalize on a substantial drop in the BERC rate(s) in the event the Commission approves the application? If so, please provide the results. If not, why not?

**Response:**

Yes. However, FEI believes that the proposal to increase spending to $300 thousand a year strikes the appropriate balance between customer education and awareness and cost.

6.5 Has FEI considered the merits of pitching RNG customers on taking a higher blend if and when the BERC rate drops (i.e., for the same dollar premium the RNG customer can get x% more RNG by switching to a higher blend)? If so, please provide the results. If not, why not?

**Response:**

Yes.

FEI has discussed this concept with key commercial customers and has received positive feedback. FEI was able to obtain written confirmation from three such customers of their intent to increase volumes with a decreased price. Please refer to the letters from Vancouver Island Health Authority (VIHA), University of British Columbia (UBC) and Thompson River University (TRU) referenced on page 32 of the Application and included in Appendix D.

FEI has not specifically asked this question of residential customers. However, the research outlined on page 34 of the Application and included in Appendix A demonstrates that it is mainly the price, rather than the blend, that drives many customers' choice of blends. With a lower BERC rate, FEI expects additional enrollments.

**7.0 Topic: Biomethane vs. Offsets**

**Reference: Exhibit B-1, 5.2.3 Jurisdictional Review Suggests Current Premium is too High**

"FEI's RNG Program remains the only one directly selling biomethane rather than offsets or carbon credits; however, this does make it significantly more expensive per GJ versus the other NG options researched." [Page 39]

7.1 In marketing its RNG product to (a) small residential and commercial customers and (b) potential large purchasers, is FEI able to make use of the fact that what is being sold is biomethane produced and consumed in B.C. as distinct from generic offsets or credits?

**Response:**

Yes. FEI continues to receive positive feedback and believes that customers recognize value in the fact that RNG is produced within B.C. FEI continues to market the fact that RNG is produced locally and used locally.

Please also refer to the response to BCUC IR 1.16.1.1.

**8.0 Topic: Clarification**

**Reference: Exhibit B-1, Table 8-1 Summary of Analysis Assumptions**

"FEI uses the market prices for RNG as proposed in this application. The mass market and long-term fixed prices are based upon natural gas commodity plus two different premiums, ($8.50 and $7.50 per GJ respectively)." [Page 50, underline added]

8.1 Please explain why the market-based price for biomethane assumed for modeling was $8.50 and $7.50 per GJ (for Short Term Contract BERC rate and Long Term Contract BERC rate, respectively) whereas the proposal is for BERC rates based on premia of $7.00/GJ and $6.00/GJ respectively.

**Response:**

The two different prices have the same net impact of recovering a premium of $7.00 and $6.00 for short term and long term contract service offerings, respectively. The market price of $8.50 is a gross price, consisting of a $7.00 premium and a carbon tax of $1.4898. The $7.50 market based price is determined from the short term contract rate less a $1.00 discount for the lower risk profile, plus a carbon tax of $1.4898, for a gross price of $7.50.

**9.0 Topic: RNG Program**

**Reference: Exhibit B-1, 6.4 Market-Based Rate**

"Under this option, RNG Program cost transparency will remain in place with all costs allocated to the BVA in accordance with the 2013 Biomethane Decision. Although the market based approach may result in a recovery from voluntary customers that is less than the costs captured in the BVA, overall the expected rate impact of this approach is estimated to be $0.015 per GJ and result in lower expected costs to non-RNG customers as compared to other options. This option would also include the annual transfer of RNG supply to the MCRA. Under this scenario, with increased demand, the transfer to the MCRA is forecast to be approximately $1.1 million in 2018, $3.3 million in 2019 and $5.0 million in 2020. Over the five-year period, and including the remaining difference between the average supply cost and the CCRA rate from the transfer to the MCRA, FEI forecasts an average of approximately $2.7 million per year to be recovered through natural gas delivery rates." [Page 44]

9.1 Please describe what the RNG Program will look like in the scenario described above, assuming the application is approved. How much new biomethane supply will be acquired? How much biomethane will be taken under the Short Term Contract BERC rate compared to under the Long Term Contract BERC rate? How much biomethane will typically remain unsold?

**Response:**

Please refer to section 9 of the Application for details of the accounting treatment and rate setting mechanisms as well as the financial schedules provided in Appendix E. In summary:

- Based on the Notional Biomethane Gas Balance, FEI expects to purchase 4,115 TJ during the years from 2015 to 2020 (including new supply projects).
- In reference to how much biomethane will be taken under short and long term contact service offerings, it is forecast that sales will be approximately 1,206,000 GJ, of which approximately 504,000 GJ will be from long term contract service offering.
- The annual notional balance of unsold inventory is forecast to be between 102,000 GJ and 1,631,000 GJ during the 2015 to 2020 period.
- Specific details relating to supply and demand have been provided in Schedules 2 and 4 of Appendix E.

**10.0 Topic: Clarification**

**Reference: Exhibit B-1-2, Figure 8-3: Summary of Market-Based Rate + Yearly Clearing Impacts to the BVA, MCRA and Non-RNG Customers**

10.1 Please explain in more detail what is shown in this graph. What "Market-Based Rate + Yearly Clearing" is assumed? Is there a difference between "Impacts to the BVA" and "BVA Balance (Millions)"? Is "MCRA Impact per GJ" not included in "Non-RNG Customer Impact per GJ"?

**Response:**

Market-Based Rate + Yearly Clearing reflects FEI's proposal. That is, the estimated impacts and forecast BVA balances are based on a Short Term Contract and Long Term Contract premium BERC rate methodology, the annual clearing of unsold biomethane to the MCRA at the prevailing CCRA rate, and the amortization of the forecast December 31 balance of the BVA (inclusive of unrecovered RNG Program costs and net of the transfer of unsold biomethane inventory and remaining supply costs) through delivery rates of all non-bypass customers.[2]

There is no difference between "impacts to the BVA" and the "BVA Balance (Millions)". FEI sees that the reference to "Impacts to the BVA" in the title may have been unclear in that the figure reflects the total forecast December 31 closing BVA balance per year and does not represent the change in the balance, as could have been inferred from the title of the figure.

The "MCRA Impact per GJ" represents the forecast impact to the Storage and Transport charge as a result of the forecast transfer of unsold biomethane to the MCRA account. The "Non-RNG customer Impact" reflects the forecast impact to delivery rates of the applicable remaining balance in the BVA (i.e. net of transfer of unsold inventory and remaining supply costs) and does not include the MCRA impact. The total average of the MCRA Impact per GJ and the Non-RNG Customer Impact per GJ from 2016 to 2020 results in an increase of $0.03 per GJ.[3]

[2] Section 7: Proposal, pages 45-52
[3] Evidentiary Update: Section 1: Introduction, pages 2-3, lines 33-37, 1

**11.0 Topic: Accounting Treatment**

**Reference: Exhibit B-1, 9. ACCOUNTING TREATMENT AND RATE SETTING**

"Rather than shift these costs to another deferral account and use a rate rider for recovery, FEI proposes to simply amortize this amount directly from the BVA into the delivery rates of non-bypass customers. This approach achieves the same result in that this cost is recovered from all non-bypass customers."

"The result of both transfers is that at the start of each year, the BVA balance would reflect the cost of RNG supply that is available for sale (i.e. supply excluding the aged inventory)." [Page 53]

11.1 Why would it be undesirable to use a deferral account and rate rider for the annual transfer of unsold biomethane from the account of the BVA to the account of the MCRA? Would the size of the rate rider on a typical residential monthly bill be too small to warrant separate treatment? Would FEI anticipate customer care costs in explaining the rate rider?

**Response:**

Please refer to the response to BCUC IR 1.40.2.1 and 1.40.4.1.

To clarify, FEI has not proposed an annual transfer of unsold biomethane from the BVA to the MCRA. FEI has proposed a transfer mechanism for notional inventory greater than 18 months in age and/or 250,000 GJ to be evaluated on an annual basis. Thus, a transfer of notional inventory and associated costs may not occur every year.

Please also refer to the response to BCUC IR 1.40.1 for a discussion on the use of rate riders from a customer perspective. FEI would not anticipate customer care costs for explaining the rate rider as rate riders do not appear on customer bills.

**12.0 Topic: Transfer of Unsold Biomethane**

**Reference: Exhibit B-1, section 7.3**

"FEI will continue to monitor the balance between supply and demand of biomethane as a matter of the usual course of business. In the event that FEI believes that it is necessary due to expected demand, it may reduce or forego the transfer of unsold biomethane in that year." [Page 48]

"Along with the change to the rate, FEI recommends that a transfer of unsold biomethane to the MCRA occurs yearly for inventory that is greater than 18 months old or beyond 250,000 GJs."

12.1 Please clarify what FEI is proposing regarding a transfer of the value of unsold biomethane to the MCRA. Is the proposal that certain conditions would result in a transfer, or that FEI would decide whether a transfer was warranted? In either case, does FEI contemplate that the Commission would approve the transfer on an annual basis?

**Response:**

Please refer to the response to BCUC IR 1.41.1.

If the Application is approved, FEI will evaluate and review demand requirements on an annual basis and transfer biomethane out of the BVA in the event that the inventory of notionally banked biomethane is either greater than eighteen months old or, depending on large volume contract requirements, greater than 250,000 GJ. The transfer would further be subject to ensuring that FEI retains at least a 6-month supply for forecast demand.

For example, if there was inventory that was greater than 18 months in age and the transfer would result in 250,000 GJs left in the supply pool but there was expected demand that required 300,000 GJs[4], FEI would adjust the quantity of the transfer such that there was enough supply to meet the forecast demand.

All transfers would be subject to review and approval of the Commission by way of the inclusion of the transfer in the applicable Quarterly Gas Cost Report or a separate filing if required.

[4] For simplicity and to demonstrate the point, in this scenario it is assumed that there is zero new supply in the forecast year.

**13.0 Topic: PBR**

**Reference: Exhibit B-1**

"Thus, while the proposed market based BERC rates are expected to recover a large portion of the forecast costs of the RNG Program certain costs will be recovered from all non-bypass customers." [Page 53]

13.1 Please confirm, or otherwise explain, that to the extent that the proposed market-based BERC rates result in recovery of certain costs of the RNG Program from all non-bypass customers this recovery is outside the scope of the performance based ratemaking (PBR) mechanism to which FEI is currently subject.

**Response:**

Confirmed.