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October 21, 2015

VIA ELECTRONIC MAIL

British Columbia Utilities Commission
 6th Floor, 900 Howe Street
 Vancouver, B.C.
 V6Z 2N3

Attention: Ms. Erica Hamilton, Commission Secretary

Dear Sirs/Mesdames:

Re: FortisBC Energy Inc. ("FEI") Application for Approval of Biomethane Recovery Charge ("BERC") Rate Methodology

We are counsel to the Commercial Energy Consumers Association of British Columbia ("CEC"). Enclosed please find the CEC's first set of Information Requests with respect to the above-noted matter.

A copy of this letter and attached Information Requests have also been forwarded to FEI and registered interveners by e-mail.

If you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Yours truly,

OWEN BIRD LAW CORPORATION



Christopher P. Weafer
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 cc: CEC
 cc: FEI
 cc: Registered Intervenors

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**COMMERCIAL ENERGY CONSUMERS ASSOCIATION
OF BRITISH COLUMBIA (CEC)**

INFORMATION REQUEST #1

**FortisBC Energy Inc. (FEI) Application for Approval of
Biomethane Recovery Charge (BERC) Rate Methodology**

1. Reference: Exhibit B-1, Page 10

1 **Table 3-2: Calculation of the BERC Rate, \$ Thousands¹³**

	October 1, 2010 ¹⁴	January 1, 2012	April 1, 2014	January 1, 2015	October 1, 2015 ¹⁵
Forecast BVA Balance (Pre-Tax)	\$0	\$606.4	\$1,245.6	\$1,485.1	\$1,766.3
Cost of Supply	-	-	1,309.7	2,204.9	2,926.6
Interconnect and Upgrader ¹⁶	-	-	279.8	754.4	761.2
Program Overhead ¹⁷	-	-	243.7	306	227.4
Total Costs ¹⁸	1,764.2	1,523.5	1,833.2	3,265.3	3,915.2
Total Costs to be Recovered (BVA Balance + Total Costs)	1,764.2	2,129.9	3,078.8	4,750.4	5,681.5
Supply Quantity (TJ)	178.1	182.1	218.9	329.6	377.8
Approved BERC Rate (\$/GJ)	\$9.904	\$11.696	\$14.065	\$14.414	\$14.414

2

3 As noted above, the BERC rate is calculated based on the quantity of supply available. Thus,
4 any difference in the quantity available and customer demand for RNG will result in an impact to
5 the BVA. Table 3-3 below provides a continuity of the BVA balance at year-end, commencing in
6 2010.

7 **Table 3-3: BVA Balance (Pre-Tax), as at December 31, \$ Thousands¹⁹**

	2010	2011	2012	2013	2014
Opening Balance ²⁰	\$0	\$59.6	\$463.1	\$948.8	\$1,300.4
Adjustment to Restate Pre-tax Balance ²¹	-	(1.6)	(9.3)	9.6	-
BVA Costs Incurred	59.6	451.8	767.7	1,217.4	2,187.9
BVA Costs Recovered	0	(46.7)	(272.7)	(875.4)	(1,644.7)
Closing Balance ²⁰	\$59.6	\$463.1	\$948.8	\$1,300.4	\$1,843.6

¹³ As filed in the FEI Quarterly BVA Reports.

¹⁴ As filed in the 2010 Biomethane Application.

¹⁵ As proposed in the FEI 2015 Third Quarter BVA Report filed with the Commission on August 14, 2015.

¹⁶ Includes both capital and operating costs.

¹⁷ Includes Program administration, education and marketing costs.

¹⁸ Forecast Costs incurred for the following 12-Month Period.

¹⁹ Actual BVA balance at year end and as filed in the BVA Annual Reports. This balance may be different than the forecast balance shown in Table 3-2 used in the determination of the BERC Rate.

²⁰ Before Adjustment for Unsold Biomethane.

²¹ Adjustment to account for the change in the annual tax rate.

1.1. Please provide a table for the forecast BVA Balance (pre-tax) and the actual BVA balances over the 2010 to 2015 period, such that the actual and the forecasts can be compared.

2. Reference: Exhibit B-1, Page 11 and Exhibit B-3, Page 3

Figure 3-1: BEREC Rate, BEREC Premium and Natural Gas Commodity Rate

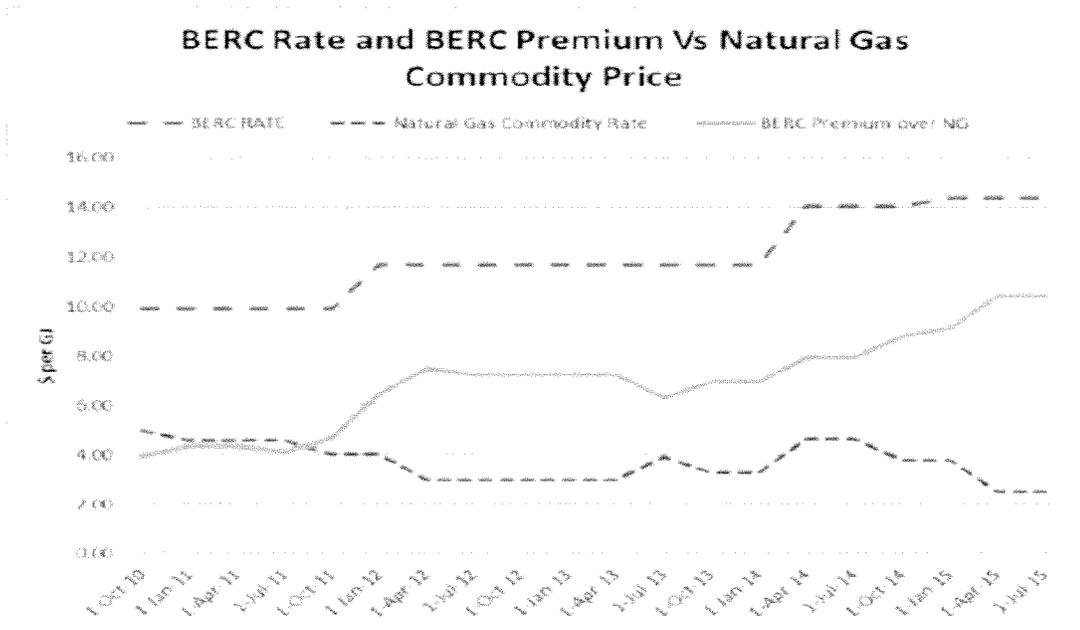
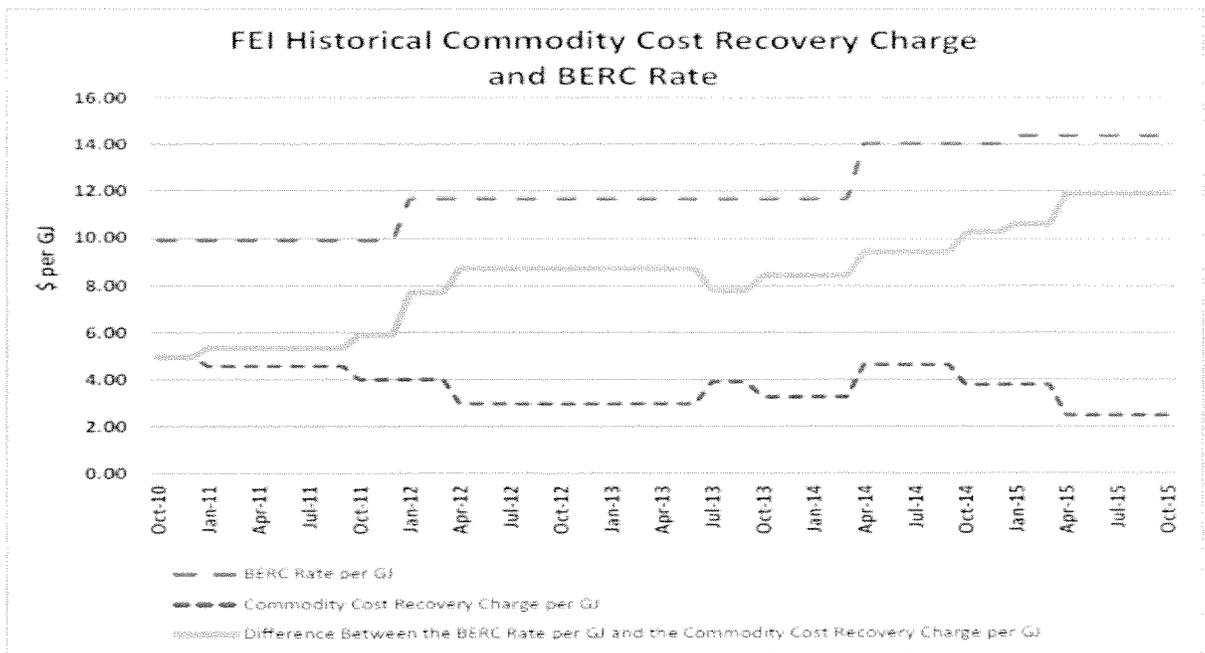


Figure 1: Historical CCRA and BEREC Rate Comparison^{1,2}

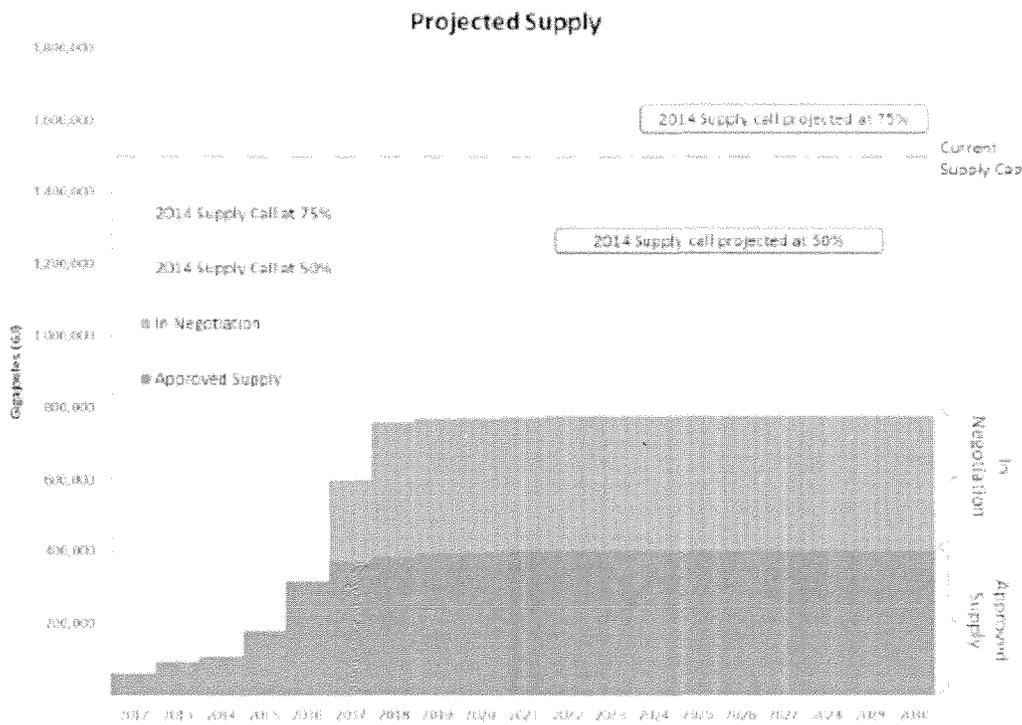


- 2.1. Please confirm or otherwise explain that the ‘commodity cost recovery charge per GJ’ and the ‘natural gas commodity rate’ are the same.
- 2.2. Please account for the differences between the “BERC Premium over NG” in Figure 3-1 and the “Difference Between the BERC Rate per GJ and the Commodity Cost Recovery Charge per GJ” in Figure 1.

3. Reference: Exhibit B-1, Pages 14 and 29

PJ of supply. FEI has therefore estimated the projected growth in supply beyond 2017 using the potential supply identified in the RFEOI. The total potential supply indicated in the graph below is based upon a scenario where FEI develops approximately 50% of the total supply available from the RFEOI and another scenario where 75% of the supply is developed. The 50% scenario is enough to reach approximately 1.4 PJ of total supply by approximately 2023.

Figure 3-3: Forecast RNG Supply, GJ



At the current BERC rate, FEI is projecting that the situation of supply exceeding demand will be exacerbated and the amount of banked biomethane will continue to grow. While Order G-210-13 provides for the ability to transfer unsold biomethane quantities to the MCRA, FEI believes that this transfer will not increase voluntary participation in the program as it results in a BERC rate that is similar to the status quo outlook for the next several years as shown in Table 4-3 below and Table 4-2 above, respectively.

- 3.1. Please provide FEI's projected sales curve up to 2024 on the above projected supply chart.
- 3.2. What options, if any, does FEI have to develop less than 50% of the supply?
 - 3.2.1. If there are options to develop less than 50% of supply, please explain why it is important to develop 50% of the supply when the demand is not materializing.
- 3.3. Could the supply currently 'In Negotiation' be deferred or abandoned altogether? Please explain why or why not.
 - 3.3.1. If the supply In Negotiation does not have to be developed, please explain why FEI believes it should be under the current conditions.

4. Reference: Exhibit B-1, Pages 17 and 20

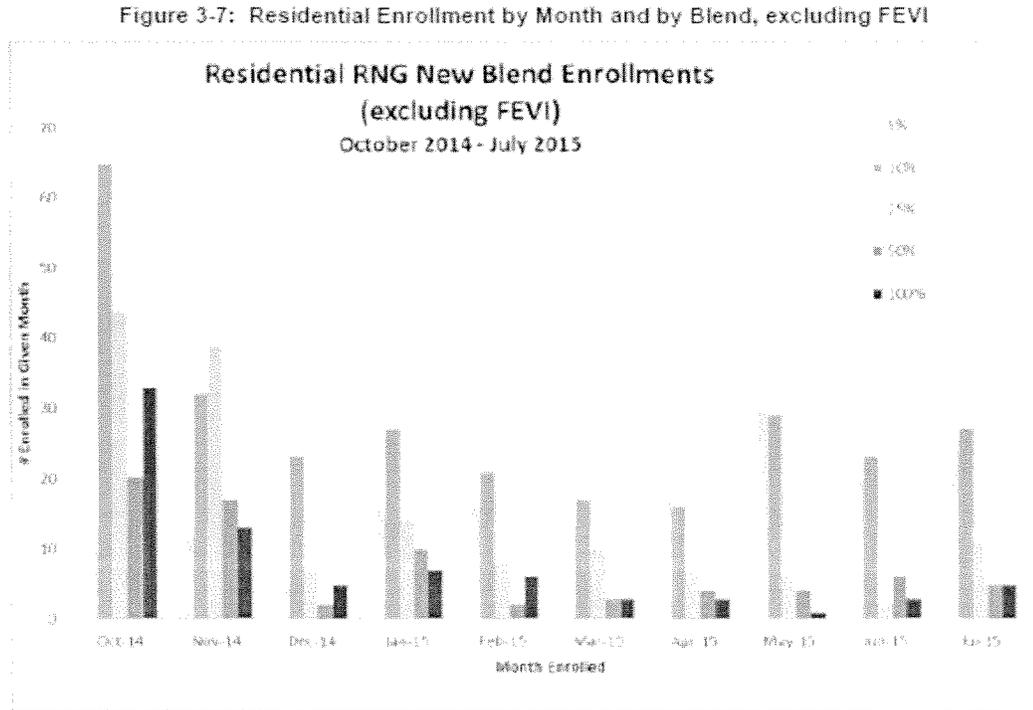
As the price of RNG has increased in both absolute terms and relative to natural gas since the beginning of 2015, the blends sign-up pattern has noticeably shifted towards the lower blend options. More specifically, between the launch of the blends in August 2014 and July 2015, there was a noticeable trend away from the higher blends towards the 5% blend option. Although during the last two months, FEI has seen a slight increase in the sign-ups for the higher percentage blends, the 5% and 10% options remain the most popular as shown in Figure 3-6 below. This leads FEI to believe that the higher BERC rate is also discouraging enrollment at 10% and higher blend options as the customers are likely to consider the total bill impact.

The current challenge to the RNG Program is the large premium for RNG compared to the CCRA rate. 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. The price differential compared to natural gas is contributing to a decline in customer participation from the historical growth levels seen in the first two years of the RNG Program.

- 4.1. Please provide any additional information that is not provided in the application that FEI has that relates to price sensitivity/elasticity with respect to biomethane by customer class.
- 4.2. Please provide any additional information that is not provided in the application FEI has that relates to price sensitivity/elasticity with respect to natural gas by customer class.
- 4.3. Please confirm or otherwise explain that if commercial and/or industrial customers were to purchase RNG, the costs would likely be passed on to the end customer.
- 4.4. Please provide FEI's views as to whether or not most commercial and industrial customers purchasing RNG anticipate creating a positive image in the eyes of their customers.

- 4.5. What opportunities, if any, does FEI provide to commercial and industrial customers to advertise their commitment to reducing their environmental impact through the use of RNG to their customers? Please discuss.

5. Reference: Exhibit B-1, Page 19



In order to develop future demand estimates, FEI analyzed the current customer blend selections. Based on the current blend subscribers, the weighted average blend of all usage is 11%, which FEI has used in all sales volume estimates in this Application.

- 5.1. To what does FEI attribute the general rise in enrollment in 10% blend from March to July, 2015?
- 5.2. To what does FEI attribute the increase in enrollment in 100% RNG between May and July, 2015?

6. Reference: Exhibit B-1, Page 20

Concurrently, as the BERC increased, FEI scaled back its marketing efforts (thus overhead) to reduce upward pressure on the BERC rate. While marketing efforts have resulted in additional participation in the RNG Program, FEI concluded that the RNG premium had reached a level that any further upward movement of the BERC rate would be more harmful than the benefits of marketing. FEI believes that a return to higher marketing spend levels are required to increase awareness of the RNG program. However, without a change in rate setting mechanism, this spend would result in a higher BERC rate and possibly even lower enrollment.

As a result, FEI believes that a change to the BERC rate methodology is warranted to both foster future program success and to minimize the potential impact of unsold costs on non-RNG ratepayers.

To determine what changes to make to the RNG Program and specifically the BERC rate, the Company relied on its customer data, customer feedback and available market data in addition to the 2013 Biomethane Decision to help guide the proposals in this Application. The declining enrollment, expected pricing based on market evidence and further analysis are more fully described in the following sections.

- 6.1. Please provide a list of any additional customer information, lifestyle segmentation or other information that FEI has available, such as survey responses or studies that address customer interest in pursuing environmental friendly options that could be applied to purchasing RNG.
 - 6.1.1. Please provide the above studies/survey responses etc.
 - 6.1.2. Please discuss how FEI utilized its market segmentation information in its determination of changes to be made.
 - 6.1.3. Please discuss how the market segmentation information supports the current decision.
- 6.2. Please confirm or otherwise explain that there are significant differences in the value that different customer groups place on reducing their environmental impact.
- 6.3. Please confirm or otherwise explain that ‘perceived benefit’ is a key determinant as to the price premium that RNG can reasonably achieve over natural gas.
- 6.4. Please list the major benefits that customers are likely to perceive as a result of purchasing RNG. Please list by customer class or segment if available.
- 6.5. Please provide any segmentation that FEI has conducted that addresses customer (residential, commercial or industrial) interests in pursuing environmentally friendly options.
- 6.6. Does FEI provide targeted marketing such that those customers who are committed to reducing their environmental footprint receive information?
 - 6.6.1. If yes, please explain how it is accomplished.
 - 6.6.2. If no, please explain why not.

7. Reference: Exhibit B-1, Pages 22 and 28

The enrollment spikes can be explained by specific historical actions. The first spike in signups in 2011 was during the launch phase when FEI was marketing more broadly, and many early adopters enrolled. Spikes two, three and four (in April 2012, December 2012 and October 2013) corresponded with the three marketing promotions conducted with Air Miles.

4.2.2 Reduction in Marketing Spend

Pursuant to Order G-210-13, marketing costs are to be included in the BERC rate. In the circumstances where there is a high premium of RNG over natural gas that causes a reduction in RNG Program participation, increased marketing spend will likely, all things equal, increase participation in the RNG Program. However, increased market spend will result in an increase in the BERC rate, which may then cause less participation in the RNG Program. FEI has thus made the decision to reduce marketing spend at this time as customer feedback (as further described in Section 5.1) suggested that the high RNG rate was the major barrier to participation. At the time FEI had anticipated that the RNG Program was sufficiently advanced that customers would continue to sign up with the lower level of marketing spend. However, as demonstrated above, customer participation in the RNG Program is dropping.

The following table provides a history of the marketing expenditures per year embedded in the RNG Program Overhead Costs.

Table 4-1: Approximate RNG Program Marketing Costs, \$ Thousands

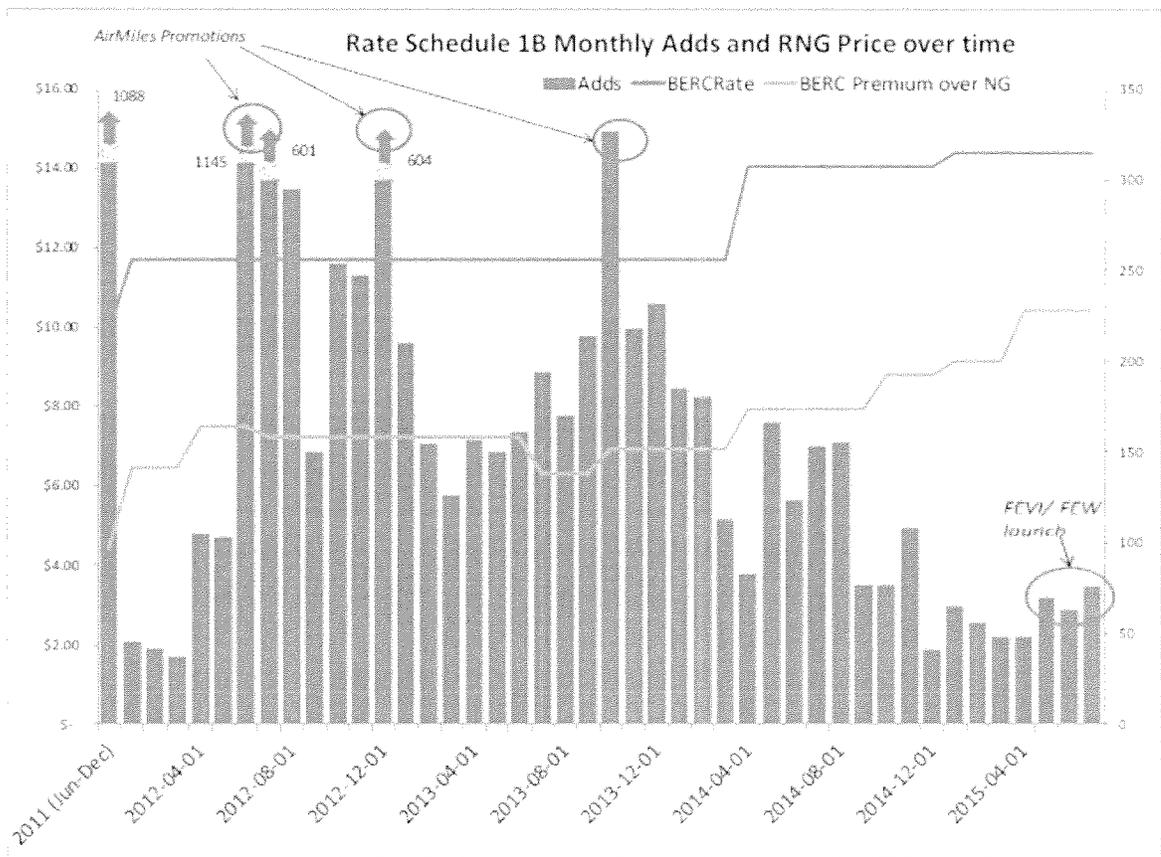
Year	Marketing Costs (Approx.)	Comments
2011	\$385	Launch year. Included multiple media channels
2012	\$301	Targeted approach using most effective channels
2013	\$321	Consistent approach as 2012
2014	\$167	Comparable spend to 2013 would have added ~ \$0.70 per GJ to BERC rate
2015 (F)	\$175	Projected spend

- 7.1. Please provide the marketing spend by year and customer class.
- 7.2. What is the estimated forecast marketing spending for 2016 and beyond? Please provide by year and customer class as far as practicable.
- 7.3. What would be the average expected bill impact of marketing spend of \$300 thousand for the following customers in both \$ and %?
 - Small residential
 - Average residential
 - Large residential
 - Small commercial
 - Large commercial
 - Industrial customer

- 7.4. Was the Air Miles program primarily related to residential customers or did it include commercial and industrial customers as well?
- 7.5. Why did FEI discontinue the Air Miles program?
- 7.6. What was the cost/GJ of the Air Miles program?
- 7.7. Please provide further details with quantification as to the expected increase in participation that would likely arise from an increase in the marketing spend.
- 7.8. What would be the likely impact of an increase in the marketing spend to \$300 thousand for 2015 and continuing thereafter?

8. Reference: Exhibit B-1, Page 22

Figure 4-2: Residential Monthly Additions Compared to RNG Price



- 8.1. What is cost of residential marketing spending on a per GJ basis?
- 8.2. Please graph marketing spending on the above chart.
- 8.3. Please provide the total volumes on the above graph.

9. Reference: Exhibit B-1, Page 24

Figure 4-4: Small Commercial Net Monthly Additions Compared to the RNG Price

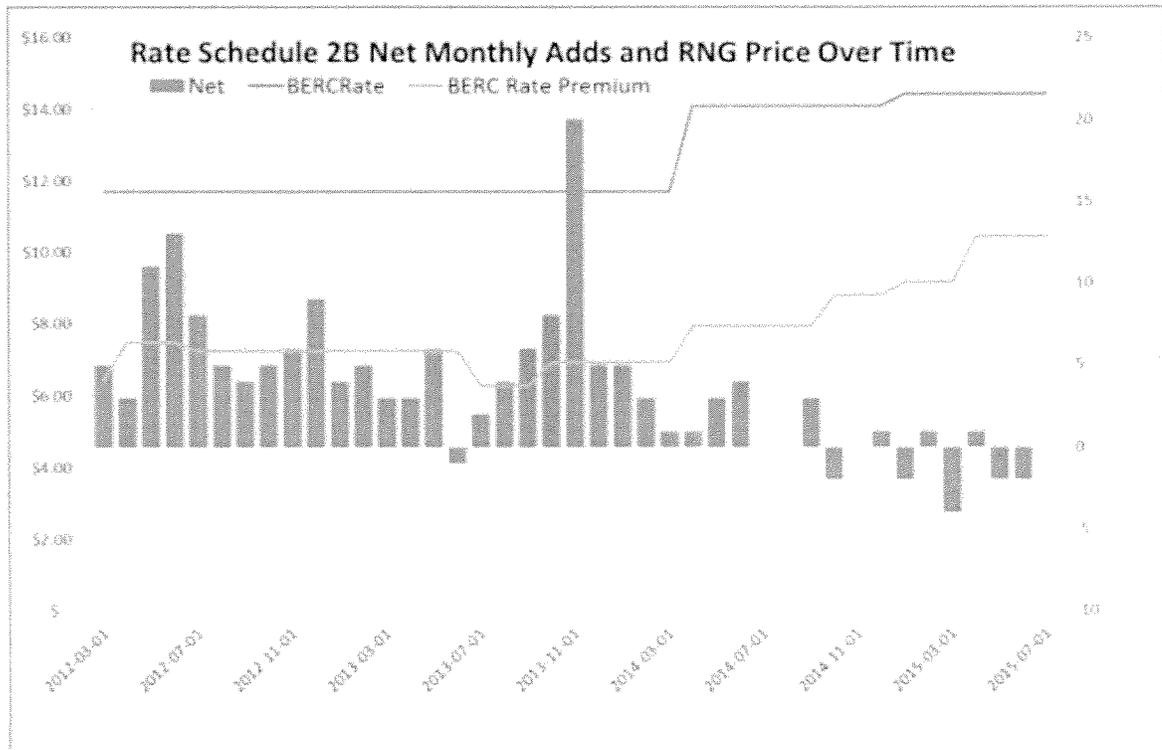
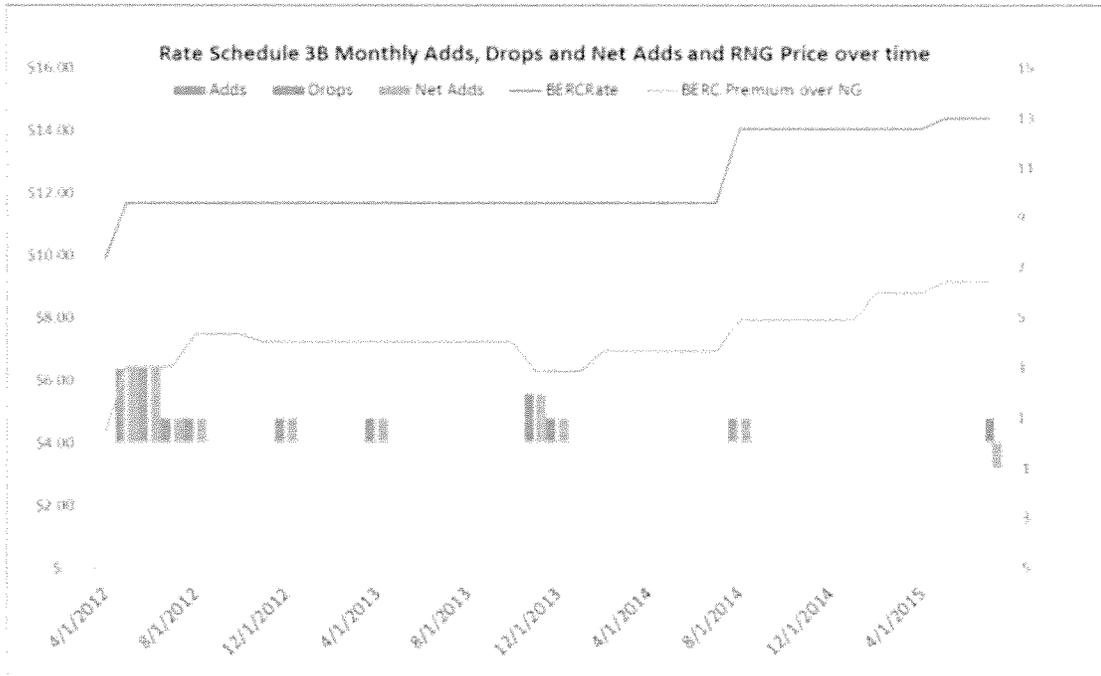


Figure 4-5 below shows the monthly additions in relation to the BERC rate. The monthly additions to the RNG Program show a general pattern of decline as the BERC rate increases. FEI was able to add an average of seven customers per month over the 2013 calendar year while adding an average of three customers per month in 2014 subsequent to the BERC rate increase. The notable spike in sales in the final quarter of 2013 is attributable to FEI temporarily allocating a sales person to undertake a commercial sales push, indicating that the additional expenditure may have had a positive impact on demand.

- 9.1. Please provide total sales volumes in the above graph.
- 9.2. Did FEI discontinue the allocation of a sales person?
 - 9.2.1. If so, when did FEI do so?
 - 9.2.2. If so, why did FEI do so?
- 9.3. What, if any, was the cost to the RNG customer and the base customers of the allocation of a salesperson in the final quarter of 2013?
- 9.4. What, if any, would be the cost to the RNG customer and the base customers of the allocation of a salesperson in 2016?
- 9.5. Please plot the marketing spend on the above graph.

10. Reference: Exhibit B-1, Page 27

Figure 4-7: Large Commercial Adds, Drops and Net - Compared to the RNG Price



A trend is much more difficult to identify in this rate class due to the relatively small number of customers.

- 10.1. Please provide the large commercial volumes in graph form over the same period.
- 10.2. In what ways has FEI continued to support its large commercial customers over time?
- 10.3. In what ways has FEI continued sales and marketing campaigns for its large commercial customers? Please discuss with time frames and provide quantification of the marketing expenditures.

11. Reference: Exhibit B-1, Page 29

Table 4-2 below provides the forecast balance in the BVA and BERCC rate if the existing situation continues. Ultimately, if left unaddressed, FEI believes that BERCC rate levels with significant RNG premiums will result in a situation where there may be a very limited number of voluntary RNG customers, and, as such, nearly all of the costs of the RNG Program will be left to be recovered from non-RNG customers.

Table 4-2: Status Quo BERCC Rate and BVA Five Year Outlook²⁸

	2016	2017	2018	2019	2020
BVA Balance (\$000)	3,464	9,208	19,088	29,838	42,928
BERCC Rate (\$/GJ)	16.60	16.51	16.98	16.86	16.97

In accordance with the 2013 Biomethane Decision, FEI is currently notionally banking unsold biomethane. Banking is an important aspect of the RNG Program because it accounts for situations where supply is greater than demand in a given period, and it likewise reduces risk of undersupply (i.e. where demand is greater than supply). FEI has observed both situations since the 2013 Biomethane Decision. For example, during the 2014 calendar year, FEI sold more biomethane than it purchased; but during the summer months of 2014, FEI was purchasing more biomethane than it sold.

- 11.1. Please confirm or otherwise clarify that renewable natural gas is delivered into the system, regardless of whether or not customers purchase the supply.
 - 11.1.1. If confirmed, please also confirm that those customers purchasing RNG supply are contributing to mitigating the costs of the service from which all natural gas customers are benefitting to the extent that RNG as a service is a benefit.
- 11.2. Please confirm or otherwise explain that the larger the customer base for RNG, the less costly the impact on any individual customer.
- 11.3. Please provide the relevant government directions and/or legislation which supports the development and/or expansion of the biomethane service.
- 11.4. Has FEI been able to have RNG utilized in any district energy systems? Please explain.
- 11.5. What, if any, would be the impact of having RNG utilized in a district energy system such as the proposed NE False Creek and Chinatown DES?
- 11.6. Would mandating the use of RNG into district energy systems provide a significant increase in the demand for RNG such that it would influence the BVA balance and/or BERCC rate? Please discuss the impact of such a mandate and provide quantification where possible.
- 11.7. Please provide FEI's views as to the appropriateness of the Commission to, within the limits of its jurisdiction, be proactive in maximizing the customer base for RNG.

12. Reference: Exhibit B-1, Page 29

At the current BERC rate, FEI is projecting that the situation of supply exceeding demand will be exacerbated and the amount of banked biomethane will continue to grow. While Order G-210-13 provides for the ability to transfer unsold biomethane quantities to the MCRA, FEI believes that this transfer will not increase voluntary participation in the program as it results in a BERC rate that is similar to the status quo outlook for the next several years as shown in Table 4-3 below and Table 4-2 above, respectively.

Table 4-3: BERC Rate and BVA Five-Year Outlook with Transfer of Unsold Quantities²⁷

	2016	2017	2018	2019	2020
BVA Balance (\$000)	3,464	9,208	9,988	5,834	4,765
BERC Rate (\$/GJ)	16.60	16.51	16.98	11.94	9.12

Thus, FEI believes that the solution should take advantage of the ability to transfer unsold quantities of biomethane on a regular basis but must also include modifications to the BERC rate methodology that will maximize voluntary participation in the RNG Program and minimize the potential impact on non-RNG customers.

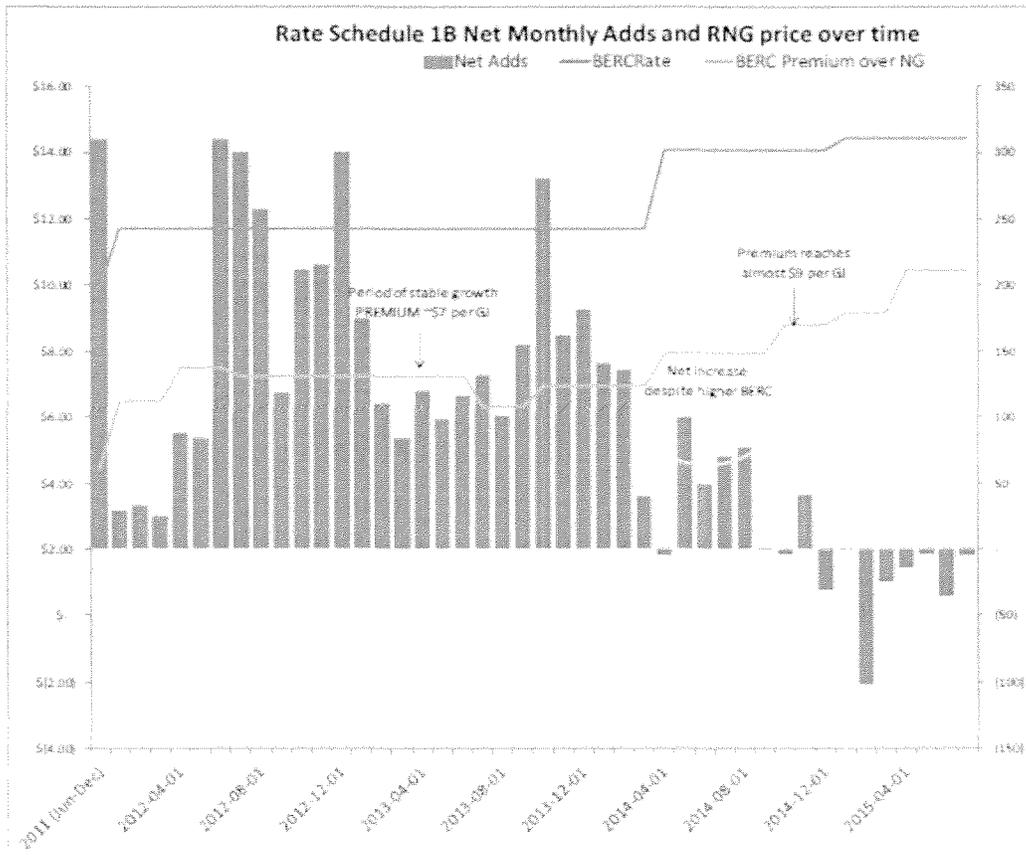
- 12.1. How much unsold biomethane is permitted to be transferred to the MCRA under G-210-13?

13. Reference: Exhibit B-1, Pages 15 and 33

For example, an average residential customer today who consumes 90 GJ of gas annually may designate 10% of his or her use as RNG and pay the associated premium. In this case, the customer will buy 9 GJ of RNG at the current biomethane price of \$14.414 per GJ and 81 GJ of natural gas at the price of \$2.486 per GJ. This customer will also receive a Carbon Tax credit equal to \$1.498 per GJ on the biomethane. Due to the higher commodity rate for RNG, the total yearly premium would then be \$93.94 or \$7.83 per month on average.

It can be observed that FEI had its greatest success in attracting and keeping customers when the premium was \$7.00 per GJ or less. The trend becomes most obvious during the fall of 2014 when premium of RNG in relation to natural gas (including Carbon Tax) increased to almost \$8.79 per GJ. It can also be seen that in that period, the number of RNG Program drops did not increase; rather, the number of additions declined markedly (see Figure 4-2). This leads FEI to conclude that there is a price barrier for new customers when the premium for RNG is too high.

Figure 5-2: Monthly Residential RNG Additions Compared to BERC Rate



- 13.1. Please confirm that the monthly price premium for an average residential customer at \$7/GJ would be approximately \$5.25 per month, assuming 10% uptake. $((90 \text{ GJ/year} * 0.1) * \$7/\text{GJ})/12 \text{ months/year}$.
- 13.2. If not confirmed, please provide.

14. Reference: Exhibit B-1, Page 38

Table 5-3: Summary of Utility Interviews

Company	Green Energy Price per GJ	\$ Premium per GJ (% Premium)	Monthly premium for average house to go 100% green power	% Residential Participation
FortisBC Rate 1 (LML service area) (G)	\$19.30	\$10.43 net of carbon tax credit (262%)	\$72	0.7%
Bullfrog Power - BC (G)	\$10.86	3.48 (87%)	\$29.87	
Wellesley Municipal Light Plant (E) *		\$11.11 (25%)		11.0%
Madison Gas & Electric (E) *		\$6.78	\$20-30	8.0%
Puget Sound Energy (E) *	\$34.72 per GJ or \$4 per block. Average customer needs 2 blocks per month to be 100% green energy	\$3.47	\$10-12	6.3%
Puget Sound Energy (G) *	\$4 per block. Average customer needs 2 blocks per month to be 100% green energy		\$8	0.2%
North West Natural (G) *	\$0.99 per GJ for volumetric program	\$0.99 (10%)		
North West Natural (G) *	\$5.50 per block. For the average user this equates to 100% green energy		\$5.50	4.0%
River Falls Municipal Utilities (E) *	\$3 per block of 1.08GJe	\$2.78	\$5.50	5.8%
Portland General Electric (Green Source) (E) *		\$2.22 (6%)		15%
Portland General Electric (Clean Wind) (E) *	\$2.50 per block of 0.72 Gje		\$7-10	(combined)
WPPI (E) *	\$3 per block of 1.08GJe	\$2.78		
Green Mountain Power (E) *		\$11.11 (29%)	\$20	1.5%
City of Palo Alto (G)		\$1.14	\$5	19.4%
Washington Gas Energy Services (G)		\$1.42		
Pacificorp California (E)		\$5.41		
Pacificorp Oregon (E)		\$2.92		8.9%
City of Naperville -IL (E)	\$5 per block of 0.72GJe	\$6.94	\$20-25	6.2%
Sacramento Municipal Utility District (E)	\$3 (50%) or \$6 (100%) monthly flat fee		\$6	11.7%
Silicon Valley Power (E)		\$4.12	\$7.50	8.1%
National Grid - Ma (E)		\$6.69 to \$10.56		
Lake Mills Light & Water (E)	\$3 per block of 1.08GJe		\$6	
Farmers Electric Cooperative of Kalona (E)	Minimum of \$3 per month			10.4%
Xcel Energy - Co (E)	\$2.16 for a 0.36GJ block	\$6		

14.1. What is the meaning of the asterisk?

14.2. FortisBC Inc. RNG customers are typically purchasing 10%, resulting in a monthly premium of \$7.20 which is in the range of other company offerings of 100%. Does

FEI consider that customers are looking primarily at the total bill impact, or are they effectively valuing the 10% benefit against the bill impact and finding it lacking? Please explain.

15. Reference: Exhibit B-1, Pages 42 and 50

Table 6-2: Five-Year Average (2016-2020) RNG Program Alternatives Estimated Impacts

	Status Quo ³⁹	Yearly Clearing	Universal "Green Portfolio"	Market-based Rate + Yearly Clearing
Storage & Transport Rate (\$/GJ)	-	\$0.019	\$0.080	\$0.015
Delivery Rate Impact (\$/GJ)	\$0.245	\$0.032	-	\$0.016
BVA Balance (\$Millions) ³⁸	\$43	\$5	-	\$19
Residential Annual Bill Impact (\$) ⁴⁰	\$22	\$5	\$7	\$3

Table 8-1: Summary of Analysis Assumptions

Item	Assumption
Biomethane Demand	Based upon FEI demand model for next 10 years assuming the approved price model. Mass market adoption rates.
Biomethane Cost	Based upon known supply projections with the addition of future potential supply. Future supply costs use expected range of contract prices and volumes based upon existing contracts and the Request for Expression of Interest issued by FEI in 2014.
Market Price for Biomethane	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).
Natural Gas Commodity	The natural gas commodity price is used to project a mass market price for biomethane. It is based on natural gas commodity market forecasts from DTN Trading and OneExchange Corporation.
Projected Total Supply	Based upon known supply projections with the addition of future potential supply. Future volumes are projected assuming a certain yearly volume addition based upon the number of projects added in a given year.
Projected delivery volume	Based upon Schedule 7, lines 7 (i.e. MCRA impact volumes) and 28 (i.e. Non-RNG Customer impact volumes) of the Compliance Filing to the 2014-2019 PBR Plan – Annual Review of 2015 Rates, Total Sales and Total Non-Bypass Sales & Transportation Service Volume. ⁴⁴

- 15.1. Please include the percentage rate impacts in the above table.
- 15.2. Please provide a detailed overview of the analysis supporting the \$22, \$5, \$7 and \$3 annual impacts with quantification.

16. Reference: Exhibit B-1, Page 43

A third option would be to transfer all costs and all RNG into FEI's existing natural gas supply portfolio. Conceptually, this would have the effect of reducing the carbon emissions of the entire portfolio while spreading the extra costs associated with RNG to all sales customers. While this option would address the current challenges faced by the RNG Program, this would require a radical restructuring of the RNG Program.

A significant challenge with this approach would be the elimination of the option for voluntary customers to take advantage of the GHG benefits for their operations. The ability to purchase RNG for use in existing natural gas equipment (notionally) while receiving recognition that GHGs are reduced is required for certain customers. The use of RNG allows these customers to reduce their emissions without changing their gas equipment.

Furthermore, this option is not aligned with the Commission's 2013 Biomethane Decision. Notably, it would not seek to maximize voluntary participation or minimize rate impacts to non-RNG customers. In short, this option would involve a complete revisiting of the RNG Program from a regulatory perspective. The rate impact of this option would be an average of approximately \$9.9 million recovered each year through the MCRA rates applicable to all sales customers or approximately an average of \$0.080 per GJ over the five year period.

- 16.1. Assuming 75% development of supply, what would be the proportion of RNG that would be included in the existing natural gas supply under this option?

17. Reference: Exhibit B-1, Pages 44 and 45

This option gives RNG customers the ability to achieve GHG reductions while at the same time minimizes impact to the natural gas delivery and commodity rates. Through this approach, FEI expects to recover most RNG Program costs from RNG customers. Along with a lower BERC rate, FEI expects higher demand, which will reduce unsold RNG inventory. These two factors together will reduce the potential rate impacts to non-RNG customers as compared to the other alternatives discussed above and as shown in Table 6-2 above.

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. Although this option would result in the recovery of some costs from non-RNG customers, the impact on non-RNG customers will be reduced when compared to the potential impact resulting from reduced or no sales to voluntary customers as demonstrated in Table 6-2 above. The proposed BERC rate will recover a large portion of the costs from voluntary RNG customers while remaining consistent with the principle of the universal benefits of the RNG Program being partially paid for by a broader base of FEI customers and will help maintain an abundant supply of RNG in BC.

- 17.1. What proportion of RNG program costs does FEI expect to recover from RNG customers under its market based proposal?
- 17.2. Has FEI conducted any sensitivity analysis with respect to lower or higher rates?

- 17.2.1. If so, please provide.
- 17.2.2. If not, please explain why not.
- 17.3. Please provide FEI's assumptions with respect to the increase in demand that is likely to be experienced with a rate of \$7 per GJ.
- 17.4. With which services does the FEI biomethane service compete? Please list.
- 17.5. Please provide a price comparison of other services in the BC market.

18. Reference: Exhibit B-1, Page 46

Larger commercial and industrial customers who commit to a minimum volume of 500 GJ per month for 10 years or more (or volume equivalent based on combination of volume and years) would be eligible for the Long Term Contract rate. FEI is proposing a \$1.00 discount from the Short-Term contract rate because of the relative benefits for FEI and its non-RNG customers.

- 18.1. On what basis did FEI select a \$1 discount? Please provide any evidence that FEI relied upon that is not included in the application or direct where it may be found.
- 18.2. Why did FEI select 500 GJ * 10 years or volume equivalent as the threshold for the Long Term Contract Rate? Please explain.

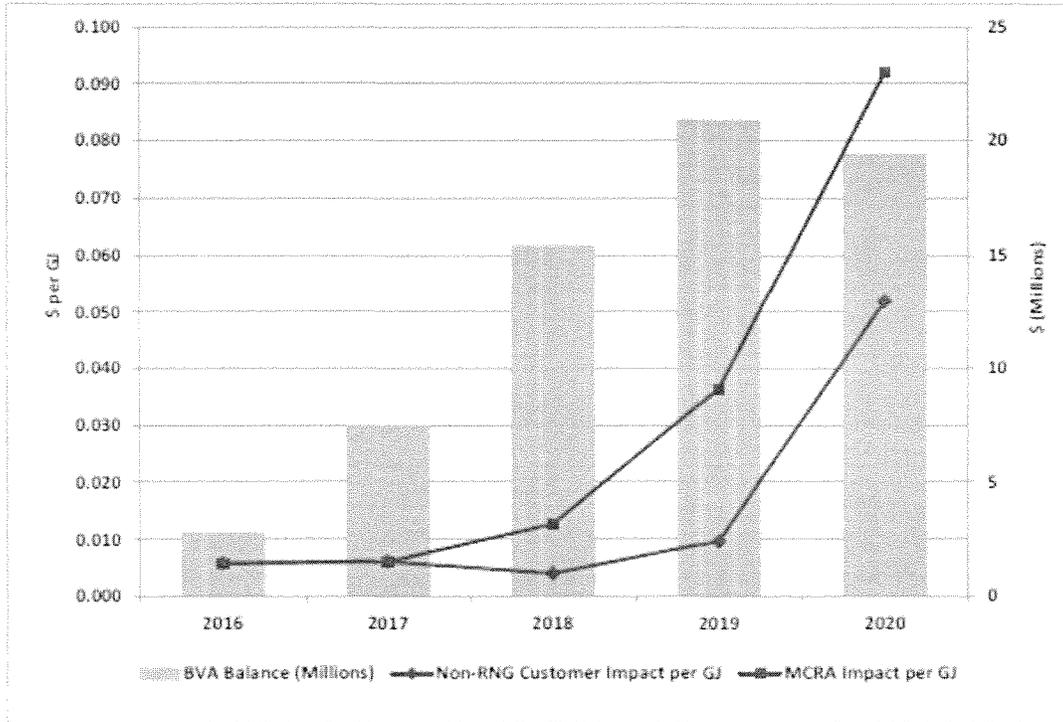
19. Reference: Exhibit B-1, Page 48

With respect to the vintage of the RNG inventory, there is not a defined protocol within Canada. However, in the US, Renewable Identification Numbers (RINs), normally expire after two years. Therefore, at this time, FEI believes it is prudent to conceptually align with this generally accepted industry practice. In order to account for a reasonable period of time in advance of a two-year vintage, FEI proposes to transfer inventory that is older than 18 months.

- 19.1. Please explain why the US Renewable Identification Numbers (RIN) are a relevant benchmark to FEI's notional inventory.
- 19.2. Did FEI consider any other terms? If so, please discuss and explain why they were not accepted.
- 19.3. Please explain the value of having a six month period of time in advance of the two year vintage.

20. Reference: Exhibit B-1, Page 52

Figure 8-3: Summary of Market-Based Rate + Yearly Clearing Impacts to the BVA, MCRA and Non-RNG Customers⁴⁵



- 20.1. Please explain the decline in the Non-RNG Customer Impact per GJ from 2017 to 2018.
- 20.2. Please explain the increasing difference in the Non-RNG customer impact per GJ and the MCRA impact per GJ.