British Columbia Utilities Commission

IN THE MATTER OF

FortisBC Energy Inc.
Application for Approval of
Biomethane Energy Recovery Charge Rate Methodology

DECISION

and Order G-133-16

August 12, 2016

Before:
D. M. Morton, Commissioner/Panel Chair
H. G. Harowitz, Commissioner
K. A. Keilty, Commissioner

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EXECUTIVE SUMMARY

On August 28, 2015, FortisBC Energy Inc. (FEI) filed an application with the British Columbia Utilities Commission (Commission) for approval of Biomethane Energy Recovery Charge (BERC) rate methodology (Application).

In the Application, FEI specifically requests the following approvals:

i. Approval of a Short Term Contract BERC rate at the Commission approved January 1 Commodity Cost Recovery Charge (CCRA rate) per gigajoule (GJ), plus the current Carbon Tax applicable to natural gas customers, plus a premium of $7.00 per GJ; and applicable to all affected biomethane rate schedules within the Mainland, Vancouver Island and Whistler Service Areas, to be effective the later of the start of the first quarter after the Commission's Decision or January 1, 2016 as discussed in Section 7 of the Application;

ii. Approval that the Long Term Contract BERC rate be set at a $1.00 per GJ discount to the Short Term Contract rate;

iii. Approval to discontinue the quarterly BERC and BVA report and replace with a single report in conjunction with the Fourth Quarter Commodity Cost Reconciliation Account (CCRA) & Midstream Commodity Reconciliation Account (MCRA) report;

iv. FEI may apply to transfer unsold biomethane supply that is greater than 18 months in age and/or 250,000 GJs in the BVA to the MCRA at the prevailing CCRA rate on January 1 each year; and

v. Approval to amortize the forecast December 31 balance in the BVA, net of the transfer of unsold inventory and remaining supply costs.

The Panel approves the Short Term Contract BERC Rate as applied for. The Long Term Contract BERC Rate is also approved, subject to the following three conditions. First, long term contracts must include a commitment to purchase no less than 60,000 GJ in aggregate over the term of the contract and must be for a term of no less than five years and no more than ten years. Second, long term contracts cannot be entered into at a price below $10/GJ. Third, if long term contracts are for a term longer than five years, a floor price provision must be included for the contract period beyond year five that ensures the Long Term Contract BERC Rate is no less than the then prevailing Conventional Gas Cost[1].

The Panel also directs FEI to file, at the sooner of when it applies to transfer unsold biomethane to the MCRA or four years from the date of this decision, a comprehensive Assessment Report to enable the Commission to determine whether the revised BERC rate methodology is achieving the directive of the 2013 Decision[2] to minimize the rate impact on customers who have not voluntarily elected to purchase RNG.

[1] Where Conventional Gas Cost equals the sum of the CCRC, the carbon tax and any other taxes applicable to conventional natural gas sales.
[2] FEI Biomethane Service Offering: Post Implementation Report and Application for Approval of the Modification of the Biomethane Program on a Permanent Basis Decision dated December 11, 2013 and Order G-210-13,

1.0 INTRODUCTION

1.1 Application and orders sought

On August 28, 2015, FortisBC Energy Inc. (FEI) filed an application with the British Columbia Utilities Commission (Commission) for approval of Biomethane Energy Recovery Charge rate methodology (Application). In the Application FEI is seeking approval of a non-cost-based Biomethane Energy Recovery Charge (BERC) rate methodology; the creation of two renewable natural gas (RNG) service offerings with a BERC rate applicable to each group; mechanisms for transferring costs and unsold biomethane volumes out of the Biomethane Variance Account (BVA) for recovery from FEI's non-bypass ratepayers; and revised reporting requirements.

The FEI Biomethane Program, now referred to as the RNG Program, was approved by the Commission initially as a two-year pilot in the FEI (formerly Terasen Gas Inc.) Biomethane decision dated December 14, 2010 accompanying Order G-194-10[3] (2010 Decision) and then approved on a permanent basis on December 11, 2013 in the FEI Biomethane Service Offering: Post Implementation Report and Application for Approval of the Modification of the Biomethane Program on a Permanent Basis Decision accompanying Order G-210-13 (2013 Decision). The BERC is the rate FEI charges for biomethane, also referred to as RNG, purchased on a voluntary basis by customers on the FEI system. The current BERC rate setting mechanism under the approved biomethane program is intended to fully recover the biomethane supply and program costs that are recorded in the BVA.[4]

FEI states that it:

> expects that if the RNG Program and the current BERC rate methodology were to continue as is, there will be two significant related impacts:
>
> - First, the BERC rate will continue at a level that discourages voluntary participation in the RNG Program; and
> - 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, all else being equal.[5]

In the Application, FEI specifically requests the following approvals:

i. Approval of a Short Term Contract BERC rate at the Commission approved January 1 Commodity Cost Recovery Charge (CCRA rate) per gigajoule (GJ), plus the current Carbon Tax applicable to natural gas customers, plus a premium of $7.00 per GJ; and applicable to all affected biomethane rate schedules within the Mainland, Vancouver Island and Whistler Service Areas, to be effective the later of the start

[3] Terasan Gas Inc. Application for Approval of a Biomethane Service Offering and Supporting Business Model, for the Approval of the Salmon Arm Biomethane Project and for the Approval the Catalyst Biomethane Project
[4] 2013 Decision, p. 65 and Executive Summary, p. iii.
[5] Exhibit B-1, Section 1.1, p. 1.

of the first quarter after the Commission's Decision or January 1, 2016 as discussed in Section 7 of the Application;

ii. Approval that the Long Term Contract BERC rate be set at a $1.00 per GJ discount to the Short Term Contract rate;

iii. Approval to discontinue the quarterly BERC and BVA report and replace with a single report in conjunction with the Fourth Quarter Commodity Cost Reconciliation Account (CCRA) & Midstream Commodity Reconciliation Account (MCRA) report;

iv. FEI may apply to transfer unsold biomethane supply that is greater than 18 months in age and/or 250,000 GJs in the BVA to the MCRA at the prevailing CCRA rate on January 1 each year; and

v. Approval to amortize the forecast December 31 balance in the BVA, net of the transfer of unsold inventory and remaining supply costs. [6]

In the Application FEI also describes "its plan to resume its marketing efforts to increase the customers' awareness of the RNG program to increase participation and minimize potential RNG impacts to non-RNG customers."[7]

1.2 Legislative framework

FEI filed the Application pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA). These sections of the UCA deal with, among other things, the setting of rates; ensuring rates are not unjust, unreasonable, unduly discriminatory or unduly preferential, and the requirement to file rate schedules with the Commission.

Section 2 of the *Clean Energy Act* (CEA) sets out a number of energy objectives including the following:

> (d) to use and foster the development in British Columbia of innovative technologies that support energy conservation and efficiency and the use of clean or renewable resources;
>
> …
>
> (g) to reduce BC greenhouse gas emissions by 2012 and for each subsequent calendar year to at least 6 percent less than the level of those emissions in 2007;
>
> (h) to encourage the switching from one kind of energy source or use to another that decreases greenhouse gas emissions in British Columbia; and
>
> …
>
> (j) to reduce waste by encouraging the use of waste heat, biogas and biomass.

1.3 Regulatory process

On September 18, 2015 the Commission issued Order G-147-15 establishing the initial regulatory timetable for the review of the Application, which included a direction for FEI to file supplemental information, the first round of written information requests (IRs) and a procedural conference to determine the remaining regulatory process.

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[6] Ibid, Section 1.2, p. 3.
[7] Ibid, Section 1.1, p. 3.

The following parties registered as interveners in the proceeding:

i. British Columbia Old Age Pensioners' Organization *et al* (BCOAPO)*;*
ii. BC Sustainable Energy Association and the Sierra Club BC (jointly BCSEA); and
iii. Commercial Energy Consumers Association of British Columbia (CEC).

Each of the three interveners submitted IRs in the first round of information requests and participated in the procedural conference.

At the procedural conference on November 16, 2015, the Panel invited submissions from parties with regard to the need for further regulatory process and, if so, the most appropriate regulatory process. In addition, the Panel requested that parties specifically address the extent to which it is necessary to clarify the scope of the proceeding regarding the subject Application. The following two items were provided as specific examples for discussion regarding what is considered within the scope of this proceeding:

a. Approval of the annual customer education and awareness expenditure as part of this proceeding.
b. Changes to the maximum quantity of biomethane that FortisBC Energy Inc. received approval to purchase in the Commission's December 11, 2013 decision accompanying Order G-210-13 in the Biomethane Service Offering: Post Implementation Application for Approval of the Continuation and Modification of the Biomethane Program on a Permanent Basis proceeding.[8]

Following submissions from FEI, each of the three interveners and Commission Counsel (on behalf of Commission staff), the Panel determined further process was warranted and that a streamlined review process (SRP) would be appropriate with the opportunity for parties to submit technical questions to FEI in advance.

The Panel determined that with regard to approvals or non-approvals by this Panel, the supply caps on biomethane purchases as approved in the 2013 Decision and approval of the annual customer education and awareness spend are out of scope in this proceeding but they are in scope for discussion purposes and for background in the SRP.[9]

The remaining regulatory timetable was established by Order G-181-15, dated November 19, 2015, with an SRP that would include FEI's final argument scheduled for February 3, 2016. Commission staff submitted a round of technical questions to FEI on January 14, 2016 (Exhibit A-7). FEI filed a response to these technical questions on February 2, 2016 (Exhibit B-9).

At the SRP, FEI provided a summary of the Application. Each of the three interveners and Commission staff asked further questions of FEI. The Panel approved FEI's request to file final argument in writing on February 4, 2016 and extended the deadline for intervener final arguments to February 16, 2016. The deadline for FEI's reply argument remained unchanged at February 23, 2016.[10]

On April 22, 2016 the Commission issued a letter to parties indicating it wished to seek argument on the appropriateness of and need for the application of floor and/or ceiling prices to a market-based BERC rate

[8] Exhibit A-5, p. 1.
[9] Transcript Vol. 1, p. 29.
[10] Transcript Vol. 2, p. 219.

methodology, and if appropriate or needed, what should be the quantum of floor and/or ceiling prices? In the letter, the Commission provided the opportunity for the parties to file evidence in this regard. Neither FEI nor the interveners wished to file evidence.

On May 4, 2016, the Commission issued Order G-60-16 requesting supplemental argument, setting out a timetable for such, on the appropriateness of and need for the application of floor and/or ceiling prices to a market-based BERC rate methodology, and if appropriate or needed, what should be the quantum of floor and/or ceiling prices. FEI, CEC and BCOAPO filed final supplemental argument in this regard and FEI filed supplemental reply argument on May 18, 2016.

2.0 BACKGROUND

2.1 Biomethane program

The RNG Program was approved by the Commission initially as a two-year pilot in the 2010 Decision and then approved on a permanent basis on December 11, 2013 in the 2013 Decision. The 2013 Decision increased the annual supply cap to the equivalent of 1.5 petajoules (PJ) and modified the cost allocation model such that the costs to be recorded in the BVA for recovery from RNG customers included the RNG Program marketing and administration costs and the interconnection costs from future supply projects not identified prior to the 2013 Decision. The cost allocation changes were made to ensure transparency with regard to the overall program costs.

2.2 Current BERC rate setting methodology and history

The current BERC rate setting methodology is based on the cost of acquisition of biomethane and other costs. It is an arithmetic calculation derived from the current dollar and gigajoule balances in the BVA and the projected purchases and forecast sales over the next twelve months. The initial BERC rate approved in the 2010 Decision at the outset of the pilot was $9.904 per GJ. The BERC rate was increased to $11.696/GJ effective January 1, 2012.[11]

In the 2013 Decision, the Commission approved FEI's request to reset the BERC rate every year on January 1st but the Panel indicated it did not believe rate changes should be restricted to only once annually. FEI was directed to continue to file quarterly reports on the status of the BVA together with a calculation of the indicative BERC rate and a recommendation as to whether the indicative BERC rate should be adopted.[12] The 2013 Decision did not set out the criteria for determining whether a BERC rate change at a date other than January 1st is warranted.

[11] Commission Order G-195-11.
[12] 2013 Decision, pp. 67–68.

Subsequent to the issuance of the 2013 Decision, the BERC was increased to $14.065/GJ effective April 1, 2014[13] and then to $14.414/GJ effective January 1, 2015.[14]

In the 2014 Fourth Quarter BVA Report filed by FEI on October 22, 2014, FEI states that it was evaluating possible options for the BERC rate methodology and expected to file a proposal in 2015 for a revised BERC rate. On an interim basis, in accordance with Commission Letter L-51-14, FEI proposed the following interim guidelines and criteria which the Commission approved in Order G-177-14:

i. Annual resetting of the BERC rate effective January 1st each year.

ii. A threshold of $1.00 per GJ that will trigger a rate reset. That is, if a Quarterly Report indicates a change greater than $1.00 per GJ (plus or minus) is required, the BERC rate will be reset.[15]

In the 2015 Fourth Quarter (Q4) BVA Report filed November 13, 2015, the indicative BERC rate change effective January 1, 2016 was calculated to be an increase to $16.072/GJ.[16] The 2015 Q4 BVA Report projected a BVA balance of 82.2 TJ as of December 31, 2015 with purchases of 152.4 TJ and sales of 150.1 TJ projected for 2015.[17] The dollar balance in the BVA was forecast to be $1.208 million after tax as of December 31, 2015.[18]

FEI continues to file quarterly BVA reports but no further rate changes have been made and the BERC has been maintained at $14.414/GJ pending the outcome of this proceeding.[19]

2.3 Approved supply cap and supply contracts

FEI enters into long term contracts with suppliers to purchase either biomethane, which the supplier has upgraded to FEI pipeline specifications, or biogas, which FEI upgrades to pipeline specification biomethane. The biomethane is physically injected into the FEI system and is notionally banked in the BVA and sold to customers as RNG. At the time of filing the Application, FEI had established six RNG supply contracts which were approved by the Commission and will produce 430,000 GJ of biomethane annually once they are all operating at full capacity.[20] Annual RNG supply from these approved contracts is projected to be 152,400 GJ in 2015, or about 10 percent of the approved supply cap. Biomethane purchases are forecast to be 317,200 GJ in 2016 and 372,800 GJ in 2017.[21]

FEI has completed negotiations for the City of Surrey Biofuel Facility and filed the contract with the Commission. FEI also states it is currently in negotiation for supply from the City of Vancouver Landfill. These two contracts are projected to add approximately 375,000 GJ of annual supply including a significant portion of the City of Surrey's supply that is intended for the City of Surrey's own use. FEI states it is not appropriate to defer or abandon negotiations as the parties have agreed in principle to move forward.[22] Beyond these contracts FEI will

[13] Commission Order G-40-14.
[14] Commission Order G-177-14.
[15] Ibid.
[16] Exhibit B-9, Attachment 45.2.1, Tab 1, p. 5.
[17] Ibid., p. 1.
[18] Ibid., p. 2.
[19] Commission Orders G-190-15, G-26-16 and G-84-16.
[20] Exhibit B-1, p. 13.
[21] Exhibit B-9, Attachment 45.2.1, Tab 1, p. 1.
[22] Exhibit B-8, CEC IR 1.3.3.

continue to contract supply to reach the maximum annual supply of 1,500,000 GJ (1.5 PJ) up to a maximum price of $15.28 per GJ as set out in the 2013 Decision. Assuming FEI contracts for 50 percent of the potential supply identified in the Request for Expression of Interest issued in the spring of 2014, FEI projects it will reach approximately 1.4 PJ of annual supply by 2023.[23]

2.4 Program performance to date

2.4.1 Sales and customer participation

The original RNG offering provided residential customers with a 10 percent blend of RNG and 90 percent conventional natural gas under Rate Schedule 1B. This offering was expanded to include small and large commercial customers under Rate Schedules 2B and 3B, respectively, effective March 1, 2012, following implementation of the new FEI Customer Care System on January 1, 2012.

Effective August 1, 2014, sales customers were provided the opportunity to choose blends other than 10 percent RNG; specifically 5, 10, 25, 50 or 100 percent. Effective the same date the offering was expanded to also introduce Rate Schedule 5B for firm sales service to provide blends of biomethane to large volume commercial, institutional, multi-family or other customers with consumption of 5,000 gigajoules per year or greater.[24]

Transportation service customers are responsible for arranging their own supply and the se customers have had the opportunity to purchase fixed monthly quantities of RNG under Rate Schedule 11B as part of their supply portfolio since the inception of the RNG pilot program.

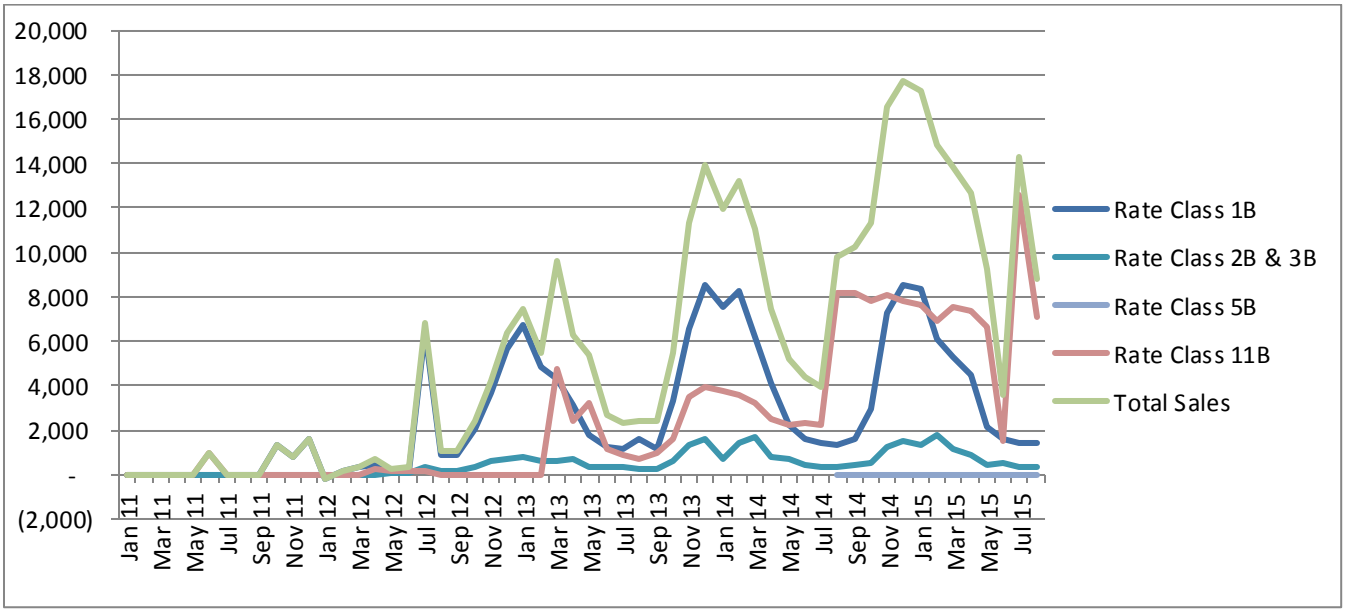
Upon the amalgamation of FortisBC Energy (Vancouver Island) Inc. (FEVI) and FEI on January 1, 2015, sales and transportation customers in the Vancouver Island and Whistler services areas were also provided the opportunity to purchase RNG under Rate Schedules 1B, 2B, 3B, 5B and 11B. FEI began actively marketing the RNG program to Vancouver Island and Whistler customers in the summer of 2015.[25]

As shown in Table 2 of the Supplementary Information Filing, the total number of FEI customers purchasing biomethane steadily increased from 1088 at the end of 2011 to a peak of 6874 customers in November 2014 and then began to decline (6650 customers by July 2015). Residential customers were the largest segment by customer count peaking at 6718 in November 2014. The number of commercial customers participating in the program peaked at 143 customers in December 2014. The number of transportation service customers on Rate Schedule 11B peaked at 5 in January 2015.[26]

The following graph constructed from the data in the spreadsheet that is Appendix A in the Supplementary Information shows the monthly sales volumes by rate class.

[23] Exhibit B-1, pp. 13–14.
[24] Commission Order G-101-14.
[25] Exhibit B-1, pp. 18–19.
[26] Exhibit B-3, Table 2.

Figure 1 – Monthly Sales by Rate Class (GJ/month) [27]



In spite of the increase in the BERC rate residential and commercial volumes increased up to 2014 and have levelled off since that point.

A significant portion of the increase in sales volumes under Rate Schedule 11B is due to sales of RNG to the University of British Columbia (UBC) to fuel the cogeneration engine at the UBC BioEnergy Research Demonstration Facility. UBC initially intended to purchase 96,000 GJ of RNG per year fuel until the BERC rate increased from $11.696/GJ to $14.065/GJ in mid-2014. UBC then scaled back its planned RNG purchases to 55,000 GJ/yr. UBC notes that this minimum level of RNG purchases is driven by a 15 year Load Displacement Agreement with BC Hydro that requires the electricity portion of the BioEnergy Research Demonstration Facility to be fuelled by a green or biofuel source (i.e. RNG).[28] 55,000 GJ/yr (4583 GJ/month) is equivalent to 37 percent of the annual RNG sales for the last twelve months of sales shown in Figure 1 above.[29]

In Table 3-3 of the Application, FEI provides historical data regarding the status of the BVA. RNG sales revenues have steadily increased since inception of the program reaching 1.6 million for the 2014 year.

Table 1 – BVA Balance (Pre-Tax) as at December 31 ($000's) [30]

	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

[27] Derived from the sales volumes reported in Exhibit B-3, Live spreadsheet that is Attachment A, Tabs 4b through 4f.
[28] Exhibit B-1, Appendix D, UBC letter, pp. 1–2.
[29] Denominator derived from Exhibit B-3, Attachment A, live spreadsheet, Tabs 4e and 4f.
[30] Exhibit B-1, p. 10.

2.4.2 Requirements of long term customers

FEI explains that a number of the potential large RNG customers are expected to look at purchases of RNG as one alternative to meet mandated greenhouse gas emissions reduction targets. For these customers the environmental attributes of the RNG are expected to have value over and above the interchangeability of RNG for conventional natural gas.[31]

With regard to the appropriate price for long term customers FEI states that:

> 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 the Long Term Contract RNG is appropriately $10.00 per GJ. [32]

In the Application FEI provides copies of a number of letters from potential customers. In a letter of support, UBC notes that "buying NG + Transport + Carbon Tax + Carbon Offsets is currently 50% of the price of RNG per GJ and under this pricing it is difficult to see how any business case would support making the transition to RNG". It further states that "[s]hould RNG fall by a significant value, then UBC may reconsider increasing its purchase of RNG to work back towards the planned original volume of 96,000 GJs annually."[33]

FEI stated that it believes that UBC would contract for the 96,000 GJ if RNG was priced at a premium (over the CCRA) of $2.75. However, it also stated that this premium results in a price that is too low, because this would result in more costs being paid by non-RNG (ie core) customers.[34]

Thompson Rivers University submits that "[p]urchasing renewable gas could become a permanent and larger part of TRU's energy supply portfolio and [greenhouse gas] reduction strategies, if lower prices and multi-year agreements allowed for long term budgeting and planning."[35]

CanGaz Ventures Inc. planned a 15 MW cogeneration facility that required an estimated 1.1 million GJ of RNG annually. CanGaz submits that "[t]he project's financial model indicated a viable price range from $8.00 to $12.00." It stated that the range of pricing was a function of ancillary revenues and required return. If the ancillary revenues, which included the projected sale of heat, CO_2 and heat related carbon credits, were realized it would have been able to pay in the range of $12.00 per GJ.[36]

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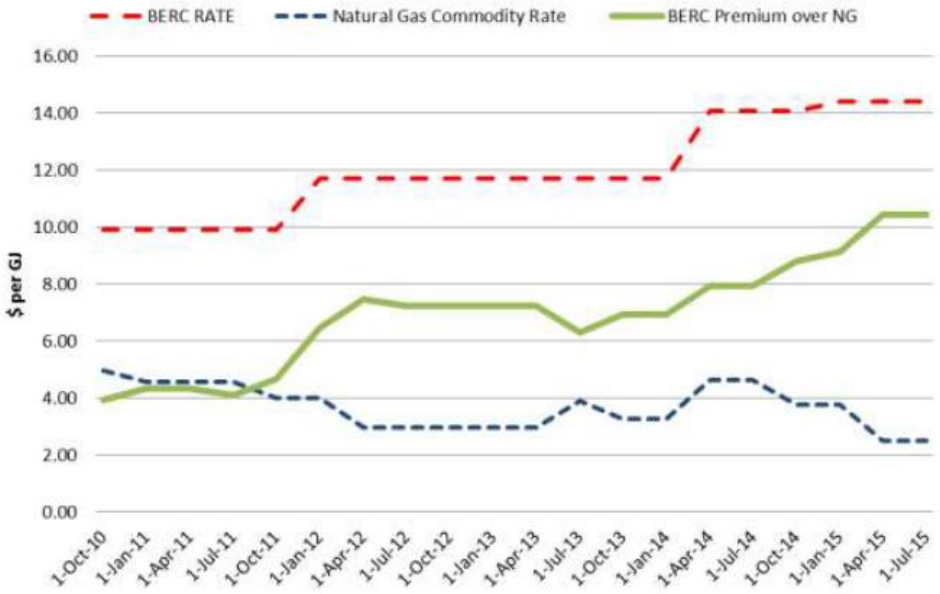
[31] Exhibit B-1, p. 32; Exhibit B-5, BCUC IR 1.18.3.
[32] Exhibit B-7, BCSEA IR I.4.7.1.
[33] Exhibit B-1, Appendix D, UBC Letter of Support, p. 2.
[34] Exhibit B-5, BCUC IR 1.18.1.
[35] Exhibit B-1, Appendix D, Thompson Rivers University, Letter of Support, p. 2.
[36] Ibid, CanGAZ Ventures Inc., Letter of Support, p. 2.

2.4.3 Challenges encountered

In Figure 3-1 of the Application (shown below), FEI shows the premium that the BERC rate is relative to the conventional natural gas commodity rate (the CCRA rate or CCRC) and describes how it has increased for two primary reasons. First, the cost of natural gas has been persistently low and the CCRA rate decreased to a little over $2/GJ by July 2015. Second, the cost of biomethane saw a significant change in April 2014 and a further increase in January 2015. The result has been a steady increase in the premium for biomethane over the CCRA rate.[37]

Figure 2 – BERC Rate, BERC Premium and Natural Gas Commodity Rate[38]

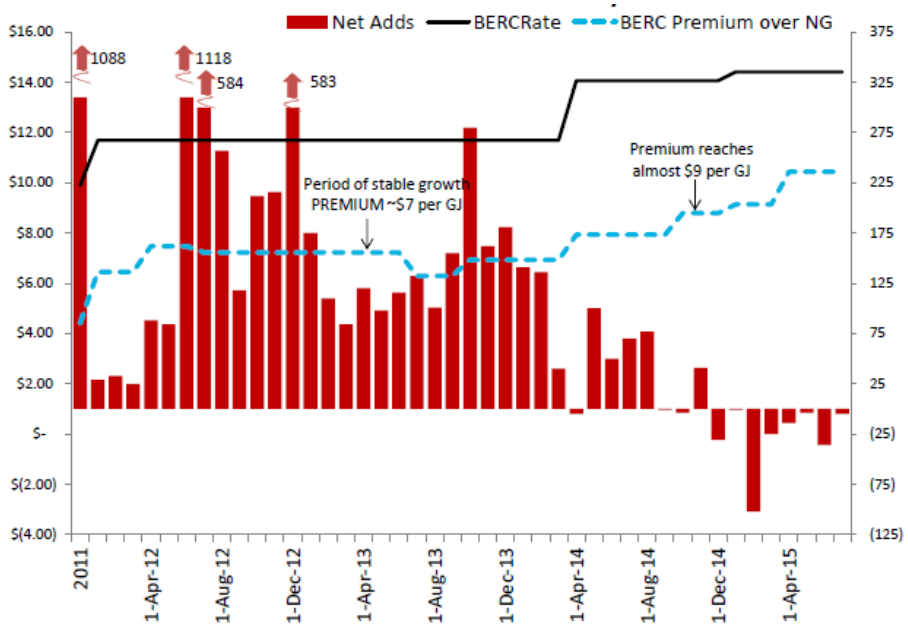


FEI submits "there has been a clear reduction in residential net monthly additions since the increase in the BERC rate in 2014."[39] Prior to that time FEI submits "it was able to add customers to the program at a relatively consistent rate. However, following the increase in price in the BERC rate, net customer additions have been consistently lower and even negative in many months."[40] FEI submits the evidence shows there has been both a reduction in monthly additions and an increase in the number of monthly customers that drop out of the program, resulting in negative additions. FEI submits the experience with commercial customers has been similar. FEI also submits it has become increasingly difficult to engage large customers in meaningful discussion about potential long-term purchases.[41]

At the SRP, FEI provided the following chart to illustrate the relationship between the number of net additions of residential biomethane customers and the premium over the conventional natural gas rate represented by the prevailing BERC rate.

[37] FEI Final Argument, p. 2.
[38] Exhibit B-1, p. 11.
[39] FEI Final Argument, p. 2.
[40] Ibid.
[41] FEI Final Argument, pp. 2–3.

Figure 3 – Net Monthly Residential Adds and RNG Price[42]



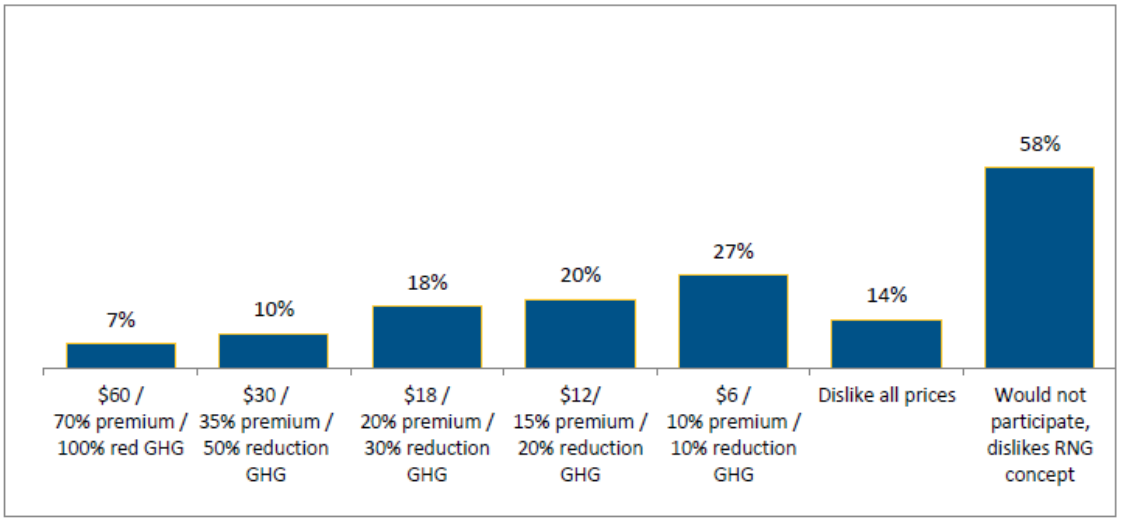
2.4.4 Customer research

FEI submits that "[w]hen customers choose to participate in the biomethane program, they agree to pay the BERC rate instead of the CCRA rate for a portion of their consumption. It is intuitive that customers will only be willing to pay so much more for biomethane than what they would otherwise pay for natural gas."[43]

FEI states that it undertook research to understand the price premium that would be tolerable for customers that were willing to pay an additional cost to participate in the RNG Program. FEI's summary of this research is shown below.

[42] Exhibit B-10, slide 8.
[43] FEI Reply Argument, p. 4.

Figure 4 – Customer Feedback on RNG Premium[44]



FEI states that:

> Based on this data, the optimum price point to maximize participation appears to be $6.00 per month assuming a 10% designation of RNG. Based on an average household consumption of 90 GJ per year that additional amount on a bill translates to a per GJ premium of approximately $8.00 (or $72 per year). This is generally in line with FEI's customer enrollment data above showing a decline in enrollment once the rate is more than $7.00/GJ above the CCRA rate.[45]

2.5 Experience in other jurisdictions

Table 5-3 of the Application provides a summary of premium pricing for green energy programs of various utilities and other providers. Seventeen are electricity programs and six are gas. There is no analysis provided regarding the underlying commodity cost at the time of the survey, whether the utility is providing notional green gas or purchasing offsets, whether the programs were voluntary, whether the core customer subsidized the program and to what extent and whether revenues were maximized.

Looking at the green gas programs for which such data is available:

[44] Exhibit B-1, p. 34.
[45] Ibid, pp. 34–35.

Table 2 – Green Energy Programs in Other Jurisdictions[46]

Company	Green Energy Price per GJ	$ Premium per Gigajoule (% Premium)	Monthly Premium for 100% green power	% Residential Participation
Bullfrog Power - BC	$10.86	$3.58 (87%)	$29.87	
Puget Sound Energy		$3.47	$8.00	0.2%
North West Natural	$0.99 per GJ for volumetric program	$0.99 (10%)	$5.50	4.0%
	$5.50 per block. For the average user this equates to 100% green energy			
City of Palo Alto		$1.14	$5.00	19.4%
FEI (RS1)	$19.30	$10.43 net of carbon tax credit (262%)	$72	0.7%

With regard to the premium for green electricity, the evidence states:

> The price premium charged for competitive-market products depends on several factors, including the price of default service and the cost of renewable energy generation available in the regional market. In recent years, some marketers (e.g. in Texas) have charged prices close to or even below the prevailing cost for system power; others have offered fixed-price products, providing customers with protection against increasing prices for a specified period of time — usually one year.[47]

3.0 PROPOSED BERC RATE DESIGN

3.1 Proposed BERC rate methodology

FEI is seeking approval of what it refers to as a "market-based" BERC rate to replace the current cost-based BERC rate methodology. FEI defines a market-based rate as a rate for RNG set at a level that the market can bear.[48] FEI proposes to set this BERC rate annually on January 1st equal to the sum of Commodity Cost Recovery Charge (CCRC also referred to by FEI as the CCRA rate) and Carbon Tax applicable on January 1st, plus a premium. As compared to today's cost-based BERC rate, the proposed BERC rate would result in a decrease in the price that RNG customers would pay. FEI expects the resulting BERC rate would have a greater likelihood of growing demand from voluntary customers.[49]

[46] Ibid, p. 38, Table 5-3.
[47] Ibid, Appendix C Status and Trends in the US Voluntary Green Power Market (2013 Data), p. 17.
[48] Ibid., p. 44.
[49] Exhibit B-1, p. 44.

FEI's proposed market-based BERC rate "will recover the costs of the program from voluntary customers to the extent possible in order to minimize the rate impact on non-biomethane customers."[50] In developing this rate design, FEI has "sought to abide by the principles coming out of the 2013 biomethane program as much as possible"[51] and "is not proposing any changes to the costs that are recorded in the BVA, nor changes to the voluntary nature of the program or indeed any changes to the existing Biomethane Rate Schedules except for the price of the BERC rate and minor changes to the GT&CS to provide for a long-term service option."[52]

FEI proposes two BERC rates, a Short Term Contract BERC Rate (Short Term BERC Rate) and a Long Term Contract BERC Rate (Long Term BERC Rate). FEI considers that the proposed two BERC rates are preferable relative to other alternatives. FEI submits that its proposal "addresses the existing challenges, while minimizing changes to the biomethane program so that no extra system changes or program complexities are required."[53]

3.2 Short Term Contract offering

FEI is seeking approval of a Short Term BERC Rate to be set once per year effective each January 1st at the Commission-approved CCRA rate plus the current carbon tax applicable to natural gas customers plus a premium of $7.00 per GJ. This Short Term Contract offering would be applicable for all residential, commercial and industrial customers that have the flexibility to adjust their participation in the RNG program on a monthly basis. FEI also proposed the rate be set once a year regardless of changes to the CCRA rate and carbon tax throughout the year. FEI states that the use of a January 1st effective date aligns with the timing of changes to other components of the overall rate providing rate stability, which is expected to encourage customer participation.[54] For illustrative purposes, the Short Term Contract BERC rate that would have been effective January 1, 2016 is $10.209/GJ (i.e. $1.719[55] plus $1.4898 plus $7.00).

FEI submits a premium of $7.00 is appropriate based on historical evidence that shows the program had relatively stable growth during the time that the BERC rate was effectively a $7.00 premium, customer surveys and the green energy programs of other utilities.[56]

3.3 Long Term Contract offering

FEI proposes a Long Term BERC Rate that is the Short Term BERC Rate effective January 1st of the year the contract is executed, less a discount of $1.00 per GJ.[57] FEI describes the Long Term Contract offering as a new form of RNG purchases in which the customer commits to purchase a certain large volume of RNG (FEI's example is a minimum of 500 GJ per month) for a certain period of time (FEI's example is a minimum of 10 years).[58] With respect to the $1 discount for Long Term Contract offerings, FEI states that the discount recognizes that such a contract provides long-term revenue certainty, a more predictable load throughout the year, savings on marketing efforts, and reduces the risk for non-biomethane customers as it avoids transfer of

[50] FEI Final Argument, p. 6.
[51] Ibid.
[52] Ibid.
[53] Ibid, pp. 11–12.
[54] Exhibit B-1, p. 46.
[55] Commission Order G-188-15.
[56] FEI Final Argument, p. 7.
[57] Ibid, p. 8.
[58] Ibid.

unsold biomethane to the MCRA.[59] FEI is not seeking approval of the remaining terms and conditions at this time but intends to file each long term contract for approval with the Commission for approval as a tariff supplement as they are negotiated.[60]

3.4 Marketing, customer awareness and education costs

In an effort to contain costs, FEI scaled back spending on customer awareness and education on the RNG program (also referred to as the marketing spend) [61] from $300 thousand per year to less than $180 thousand for 2014 and 2015. FEI states, all things equal, the higher marketing spend would be expected to increase customer participation. The corresponding difference in marketing spend would have effectively added $0.70/GJ to the BERC rate. Given the impact the higher level spend would have on the BERC rate, FEI believes the higher spend would cause less participation.[62]

FEI intends to reinstate the annual customer education and awareness spending back to the $300 thousand level in conjunction with the introduction of the proposed BERC rate methodology. [63] Although FEI is not requesting Commission approval for the increased spending level in the Application, FEI submits that "customer education and awareness spending is necessary and beneficial for all customers and that a $300 thousand budget is modest amount to accomplish the task of reaching FEI's one million customers and maintaining a voluntary biomethane program."[64]

3.5 Accounting treatment and rate setting

The BVA records balances of both quantities of unsold biomethane and unrecovered costs both of which may accumulate to the extent there is unsold inventory of biomethane purchased under the approved supply contracts and/or costs are not fully recovered through the BERC rate.[65]

FEI is seeking approval in principle that it may apply to transfer unsold biomethane supply that is greater than 18 months in age and/or 250,000 GJs in the BVA to the MCRA at the prevailing CCRA rate (i.e. CCRC) on January 1 each year. This transfer would be subject to ensuring that FEI retains at least a six-month supply of biomethane to meet forecast demand and in consideration of certain key principles regarding minimizing the impact on natural gas delivery and commodity rates, leaving sufficient supply to meet commitments to long-term customers, seeking to keep rate impacts stable from year to year and recognizing generally accepted industry practice regarding the vintage of "green energy."[66]

This transfer of unsold biomethane inventory to the MCRA will result in costs remaining in the BVA to the extent the CCRC is less than the cost of the transferred biomethane. In addition, as the proposed market based BERC rate is expected to be below the cost-based rate, not all costs recorded in the BVA will be recovered from voluntary RNG customers via the BERC rate and these unrecovered costs will also accumulate in the BVA.

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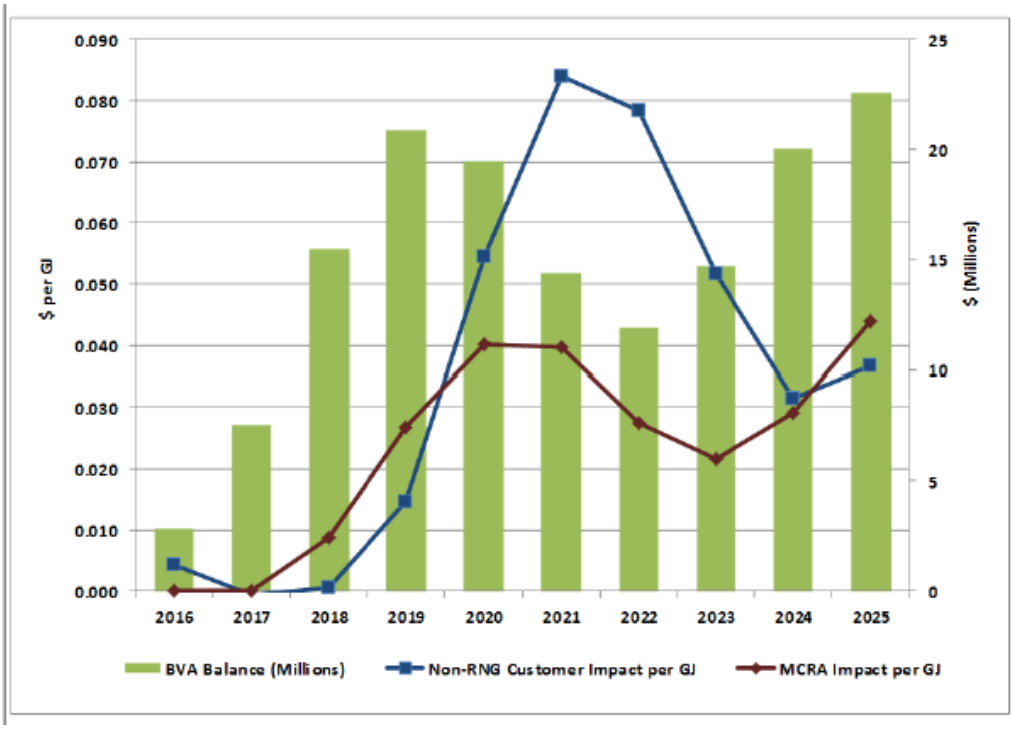
[59] Ibid.
[60] Ibid, pp. 8–9.
[61] FEI and interveners use the terms marketing and customer awareness and education interchangeably.
[62] Exhibit B-1, p. 28.
[63] Ibid, p. 48.
[64] FEI Final Argument , p. 17.
[65] Exhibit B-10, slide 16.
[66] Exhibit B-1, pp. 47–48.

FEI proposes a mechanism to recover these costs from all non-bypass customers. FEI seeks approval in principle that it may amortize the forecast December 31st balance in the BVA, net of the transfer of unsold inventory and remaining supply costs, through the delivery rates of all non-bypass customers effective January 1st of the subsequent year. FEI anticipates that these amortization amounts would be forecast at FEI's annual review or revenue requirement proceedings, subject to true-up to the actual amortization set each year.[67]

3.6 Potential impact on non-RNG customers

FEI provides the following figure to illustrate the impact of the aged inventory transfers to the MCRA on the core sales customers and the impact of the annual transfer of costs out of the BVA for recovery from all non-bypass customers through delivery rates:

Figure 5 – Summary of Market-Based Rate and Yearly Impacts to the BVA, MCRA and Non-RNG Customers[68]



As shown in the table below extracted from the spreadsheet attached to FEI's response to BCUC2.51.1.1, FEI's forecast impact of the proposed BERC rate methodology and cost recovery mechanism on delivery rates for non-bypass customers ranges from essentially zero in 2017 and 2018 to a maximum of $0.0839/GJ or 2 percent for 2021 at which point in time FEI forecasts the transfer of $14.718 million for recovery from all non-bypass customers.

[67] FEI Final Argument, p. 14.
[68] Exhibit B-9, BCUC IR 2.51.2.

Table 3 – Forecast Impact on Delivery Rates[69]

Transfer to Delivery Rates	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Transfer all costs except Supply ending balance ($000's)	(756)	105	(101)	(2,569)	(9,530)	(14,718)	(13,750)	(9,053)	5,528)	(6,409)
Impact total customers per GJ ($)	(0.0043)	0.0006	(0.0006)	(0.0147)	(0.0544)	(0.0839)	(0.0784)	(0.0516)	(0.0315)	(0.0366)
Impact % of delivery margin	0.10%	-0.01%	0.01%	0.36%	1.32%	2.04%	1.91%	1.26%	0.77%	0.89%

4.0 ISSUES ARISING FROM THE APPLICATION

4.1 Appropriate BERC rate methodology

4.1.1 Approach to the decision

FEI states that the primary objective of the Application is

> to encourage customer participation in the RNG program. To achieve this objective, FEI is proposing a change to the BERC rate. With this change, FEI expects to increase the sales of RNG to customers, to maximize the recovery of RNG program costs from RNG customers, and to moderate the long term rate impacts of the RNG program on non-RNG customers.[70]

FEI points out that moderating the rate impacts on non-RNG customers and increasing the sales volume of biomethane are interrelated. It submits that, maximizing sales of RNG will minimize rate impacts on non-RNG customers. FEI expects that a lower BERC rate will encourage more customers to join the program, thereby increasing the volumes of RNG sold. As a consequence RNG customers will pay a greater share of the costs than they would with the existing BERC methodology in place.[71]

Panel discussion

The Panel makes a conscious decision to adopt the nomenclature of "Short Term BERC Rate" and "Long Term BERC Rate" in favour of referring to it as a "market-based" rate as FEI refers to its proposed BERC rate methodology. Our concern with the market-based phrasing is that it is potentially misleading. More specifically our concern is that market-based pricing (or rate) is typically understood to imply a market clearing price at which supply and demand of the product in question are roughly in balance. The proposed BERC methodology departs from the existing cost-based framework, but it is not market based in the conventional sense. That is, it

[69] Ibid. BCUC IR 2.51.1.1, Attachment 51.1.1, extracted from the Live spreadsheet, Tab "Forecast Impacts."
[70] Exhibit B-5, BCUC IR 1.1.
[71] Ibid.

is based on a market rate, but for a different product (i.e. conventional gas). Hence, the Panel chooses to refer to the proposed new rate mechanism in the more neutral terms of Short Term BERC Rate and Long Term BERC Rate.

For clarity the Panel also defines the sum of the CCRC, the carbon tax and any other taxes applicable to conventional natural gas sales as the Conventional Gas Cost.

At issue in this proceeding is whether the BERC price setting methodology should be changed, whether a BERC rate based on the Conventional Gas Cost is more appropriate and, if so, what the premium over the Conventional Gas Cost should be. FEI's stated objective in setting a new BERC rate is "to maximize sales of RNG, to maximize the recovery of RNG program costs from RNG customers, and to moderate the long term rate impacts of the RNG program on non-RNG customers."[72] This is consistent with the Commissions 2013 Decision which stated, among other things, that every effort is to be made to recover program costs from biomethane customers.

The Panel identifies three overarching objectives that guide its decision:

1. **Maximize the recovery of program costs from RNG customers**. This objective was laid out in the previous Commission decision. In order to maximize the recovery of program costs, it may not be sufficient to maximize the number of RNG customers, reduce the number of net RNG customer drops or to maximize the volume of RNG sold. The *revenue* received from biomethane customers must be maximized. This is an important distinction, as there has been discussion in this proceeding of all of these metrics. When considering an appropriate BERC price setting mechanism, the Panel will consider whether the proposed pricing mechanism is expected to maximize revenues. If it isn't possible to make a determination about maximizing revenues, the Panel will then consider whether the proposed pricing mechanism is expected to at least increase revenues relative to what revenues are expected to be in the absence of a change in the BERC pricing methodology.
2. **Manage biomethane inventory.** FEI expressed concern that the longer the inventory ages, the more difficult it may be to sell. To the extent this is an issue, an exception to the principle of maximizing revenue may be required, and instead a BERC that maximizes sales volume may be more appropriate. However, as FEI points out, it also needs to ensure that sufficient inventory is available in the event a large long term customer signs up. Inventory aging issues will be addressed in section 4.3 of this Decision.
3. **Establish a BERC rate setting mechanism that is robust, effective and provides regulatory efficiency**. The cost of proceedings to set the BERC rate can add considerably to the cost of biomethane. A pricing mechanism that requires a minimum of regulatory oversight will minimize those cost impacts. The current mechanism, based on biomethane acquisition costs, with a relatively simple annual adjustment, is an example of such a mechanism. A market rate that floats with the Conventional Gas Cost is another such example. A fixed price, for example, which could require substantial and frequent revisits to consider the effect of inflation, changing commodity prices, changing costs of acquisition may not be as efficient.

[72] Ibid.

4.1.2 Need for a change to the existing rate methodology

In the Application, FEI provided evidence to show that the residential and commercial net customer additions have declined and sometimes been negative since April 2014.[73] The evidence is summarized in section 2.4.1 of this decision. FEI submits that the current BERC rate makes it difficult to attract large volume customers[74] and that the premium of biomethane over the CCRA rate is also well above the premium of green energy programs in other jurisdictions.[75] FEI submits that the current BERC rate does not maximize future revenue from voluntary customers.[76]

FEI further argues that increases in the BERC rate since 2014 have reduced residential net monthly additions to the point it has resulted in negative additions. It states also that the evidence is similar for small commercial customers.[77]

Intervener argument

Regarding short-term customers, CEC disagrees with FEI, arguing that "there is no evidence supporting a response to the BERC rate premium." It submits that FEI incorrectly interpreted the evidence and that the drop-out rate is nearly flat for almost a year although it is higher than previous years due to a fairly consistent churn rate applicable to the growing customer base. CEC also submits that FEI has not demonstrated that customers pay specific attention to the difference in cost between the CCRC and the BERC rate, and that it is more likely that a customer manages their total energy bill.[78]

CEC appears to agree that the BERC rate should be changed to a market-based rate. However, CEC makes recommendations that vary from FEI's two BERC rates proposal.[79] CEC submits that market-based rates should be established on the basis of a rate design where price is connected to sales and retention strategies. However, at the same time, CEC submits that the evidence with respect to the need for a significant price reduction to acquire and retain customers is not well-established. CEC further submits that FEI does not provide evidence to rule out other opportunities that may provide a more optimal balance for mitigating costs to non-bypass customers.[80]

BCSEA supports FEI as it believes that the BERC rate is too high to allow maximum recovery in the BVA from biomethane customers.[81] BCSEA views that a BERC rate reduction is required to revitalize the participation of residential and small commercial customers in the RNG program.[82]

BCOAPO accepts that the increased cost of biomethane has resulted in reduced uptake. BCOAPO submits that

[73] FEI Final Argument, p. 2.
[74] Ibid., p. 3.
[75] Ibid., p. 4.
[76] Ibid., p. 5.
[77] Ibid., p. 3.
[78] CEC Final Argument, pp. 11–12.
[79] Ibid, pp. 1–2.
[80] Ibid, p. 10.
[81] BCSEA Final Argument, pp. 1, 5.
[82] Ibid, p. 5.

the cause of the decrease in voluntary uptake is likely to be a combination of the increased BERC rate premium and reduced customer education spending.[83]

FEI reply

FEI replies to CEC that there are two short-term spikes in drop-outs. The spike in early 2014 is due to the increase in the price of biomethane and discontinuance of the AirMiles program, while the second, even larger spike can only be attributed to the increase in the price of biomethane.

FEI disagrees with CEC contention that customers more likely manage their total energy bill, rather than the difference between the CCRA and the BERC rate. In FEI's view, because customers agree to pay the BERC rate instead of the CCRA rate for only a portion of their consumption, it is intuitive that customers will only be willing to pay so much more for biomethane than they would otherwise pay for natural gas. In support of this argument, FEI notes its market research indicating that the average residential customer would be willing to pay about an extra $6/month assuming a 10% blend.[84]

Panel discussion

The Panel acknowledges that a reduction in the BERC rate will in all likelihood result in an increase in sales of biomethane. However, increasing the amount of biomethane sold may not necessarily increase revenues and therefore may not be in the best interests of FEI's non-RNG customers. To illustrate, setting the price of biomethane at the current Conventional Gas Cost would increase the volume sold but would not increase program revenues. While a reduction in the BERC rate may stimulate sales volumes, it may result in lower revenues from the RNG program and increase the amount that all non-bypass customers will ultimately be required to pay. The amount that is to be recovered from non-RNG customers will only decrease if the reduction in the BERC results in an increase in total revenues from the RNG program.

The evidence available to the Panel is not conclusive with regard to whether the proposed BERC rate will maximize revenues. There are a number of issues that confound the analysis, including:

1. Much of the evidence focusses on the number of drops and adds vs the volume of biomethane sold.
2. The amount of historical marketing spend varied as the BERC increased.
3. The differential between the BERC rate and the Conventional Gas Cost changes with changes in the BERC rate and changes in the underlying commodity price of natural gas, requiring additional analysis to account for this when correlating the BERC rate with demand for RNG.
4. The impact of a change in the number of blends offered introduced in 2014.
5. Changes in the Conventional Gas Cost impact the total bill thereby requiring additional analysis to account for this when correlating the BERC rate with demand for RNG.

For example, with regard to point 1 above, evidence discussed in section 2.4.1 of this decision indicates relatively constant volumes of biomethane sold at both the $12 and the $14 BERC rate which has resulted in revenues actually increasing as the BERC has risen from $12 to $14. This has happened even with a reduction in

[83] BCOAPO Final Argument, p. 2.
[84] FEI Reply Argument, pp. 2–5.

the marketing spend. However, in August 2014 there was an increase in the number of blends available including a blend with a greater proportion of biomethane, which could potentially account for a one-time increase in volume sales as some customers upgrade to a higher blend, even as net customer adds decreased. Further, the volume data is not weather normalized.

Given the presence of these confounding factors, in our view it is not possible to draw firm conclusions from the evidence presented However, the current BERC (i.e. what the BERC would be set at using the current methodology, had the Commission not ordered it to remain at $14.414/GJ) may discourage voluntary participation in the RNG program, and this may result in a reduction of revenue. That consideration is, at least in part, why the Commission did not approve the BERC rate increase. Therefore we conclude that the current BERC rate is too high and that it is therefore just and reasonable to consider a lower BERC rate. Since the current BERC methodology provides only for a BERC rate that is based on the cost of acquisition of biomethane, and doesn't allow for a reduction in the BERC rate we consider a revision to the existing BERC rate methodology is warranted.

4.1.3 Is the proposed rate design a reasonable alternative?

In addition to the methodology proposed by FEI, to base the Short Term Contract BERC rate on the Conventional Gas Cost plus a premium of $7, three alternatives were also considered by FEI in its Application:

1. Status quo
2. Yearly clearing
3. Universal green portfolio

FEI states that the status quo does not seek to maximize participation in the RNG program on a voluntary basis or minimize the potential rate impact to non-RNG customers and therefore rejected this option. It also states that yearly clearing does not address the current challenges faced by the RNG Program, does not seek to maximize voluntary participation or minimize potential rate impacts to non-RNG customers and has therefore also rejected this option.

FEI also states that it rejected the universal green portfolio option because it doesn't maximize voluntary participation or minimize rate impacts to non-RNG customers. It explains that

> 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 and average of $0.080 per GJ over the five year period. FEI believes that while a viable and reasonable alternative, the universal green portfolio approach should only be considered once opportunities to maximize voluntary RNG Program participation are exhausted and as such, it is not FEI's preferred alternative at this time.[85]

Other alternatives were explored in the proceeding, including customers choosing their own blends, customer determined flat fee contributions, a block-based rate, auction and a universal green portfolio.[86] FEI views that

[85] Exhibit B-1, pp. 42–44.
[86] Exhibit B-5, BCUC IR 19.0 series.

some of these options represent a radical restructuring of the biomethane program, arguing that these alternatives require significantly more time and money to properly investigate and implement. Thus, FEI submits that the Commission should reject these types of options.[87]

With regard to the Long Term BERC Rate, FEI submits that "In particular, the $1 discount puts the proposed price in the economic range indicated by UBC and by CanGaz, as shown in their letters filed in Appendix D to the Application (CEC IR 1.18.1)."[88]

Intervener argument

BCSEA does not support the alternatives explored in the proceeding. BCSEA submits that the RNG product is already a difficult concept to explain to potential customers. It further submits that it is satisfied that $7/GJ is the appropriate size for the RNG premium, stating that there is no definitive quantitative methodology that can be used to set the optimal premium and that there is no evidence that a different size of premium would produce better results. In its view, FEI has provided various valid reasons in support of the $7/GJ figure, including reference to the RNG BERC price prior to the 2014 BERC rate increase, customer survey information, and the pricing of green energy programs in other jurisdictions.[89]

CEC submits that:

> the rate design for the RNG option to larger customers which is connected to term and volume is appropriate and [CEC] supports FEI in this approach. The CEC submits that a single threshold is inappropriate for the price trade-off versus the certainty for the full potential ranges for contract term and volume. The CEC recommends a formulaic approach to price discounts for term and volume which should be based on a value for the magnitude of revenue certainty.[90]

BCSEA submits that FEI's proposal with a $1/GJ discount for large volume fixed term purchases is a reasonable and effective approach.[91] BCSEA view the concept of a slightly discounted BERC rate for large volume long-term contracts as a useful model with several advantages. In addition to meeting the financial needs of potential large volume purchasers, the model is defensible in that the large-volume purchaser makes a long-term commitment whereas the residential/small commercial purchaser can join and leave the program at will. BCSEA submits "[b]oth in reality and in public perception, the somewhat lower BERC rate for the large volume purchasers is easily understandable and justifiable."[92] In addition BCSEA notes FEI does receive value from having the long term commitment to a volume, a price and a term which is of considerable benefit to the RNG program in terms of FEI managing the biomethane supply and locking in sales commitments. BCSEA anticipates large volume purchasers are not unwilling to make such long term firm commitments because they too can benefit from the increased level of certainty.[93]

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[87] FEI Final Argument, p. 10.
[88] Ibid, pp. 8–9.
[89] BCSEA Final Argument, p. 6.
[90] CEC Final Argument, p. 26.
[91] BCSEA Final Argument, p. 1.
[92] Ibid., p. 6.
[93] Ibid., p. 6.

BCOAPO submits that adjusting the existing program is better than redesigning the whole program. The current model has been established through an extensive regulatory process and contains valuable data and experience. BCOAPO considers that if the FEI proposal is approved but the voluntary uptake does not materialize, then the parties can consider whether it is necessary to adopt an alternative model. [94]

Commission determination

The Panel agrees with FEI and interveners that FEI's proposed rate design is preferable to the alternatives explored, both in the Application and in the proceeding. We agree with BCOAPO's characterization of FEI's proposal as an "adjustment" to the existing proposal, as opposed to a redesign of the program, and also agree that an adjustment is more appropriate than a redesign.

The Panel also agrees with FEI's view that the universal green portfolio would involve a complete revisiting of the RNG Program from a regulatory perspective and in our view it should only be considered once opportunities to maximize voluntary RNG Program revenues are exhausted.

The Panel is concerned with FEI's consideration of alternatives with a focus on "opportunities to maximize voluntary RNG Program participation" for two reasons. First, the 2013 Decision directed that rate impacts on all non-RNG customers should be minimized, not that voluntary RNG program participation be maximized. The difference is that voluntary RNG program participation can be maximized by reducing the BERC rate and that will, in all likelihood, increase demand. However, it will not necessarily increase revenues. If the reduction in the BERC rate does not increase revenues, the result will be an increase in rate impact upon non-RNG customers. Therefore, the Panel does not agree that the BERC rate should be reduced simply to sell more bio-methane, unless the reduced rate will result in the maximum achievable revenues.

FEI states it would consider the new BERC rate methodology effective if FEI achieves two percent customer uptake, the execution of one long term contract and there is no need for an inventory transfer from the BVA to the MCRA.[95] If a lower BERC rate results in a reduction in total RNG revenues (and therefore an increase in costs to non RNG customers), doing so is not in line with the requirements of the 2013 Decision, even if it does result in an increase in customers. In the Panel's view, the correct approach to maximizing revenues is to determine the price elasticity based on the observed data and use that information to predict the BERC rate at which revenues are expected to be maximized, given those observed demand elasticities.

Second, the Panel is concerned there is currently no evidence of expected maximum revenues or how to measure when the point of maximum revenues have been reached. We have previously discussed this issue in section 4.1.2of this decision. Without this information it is not possible to determine whether a BERC rate will achieve the goal of maximizing revenues. We address this issue of the lack of information further in section 4.6.2 of this decision.

With regard to the correlation between the premium and participation in gree n energy programs of other utilities, the Panel finds the evidence to be non-conclusive. As shown in the table in section 2.4.2 of this Decision, there appears to be little correlation between the premium and residential participation. For example,

[94] BCOAPO Final Argument, p. 3.
[95] Exhibit B-5, BCUC IR 1.42.1.

Puget Sound Energy has a participation rate of only 0.2 percent with a premium of $3.37, the City of Palo Alto has a participation rate of 19.4 percent with a monthly premium of $5.00 Northwest Natural has a participation rate of 4 percent with a monthly premium of $5.50 and FEI has a participation rate of 0.7 percent with a premium in excess of $10. The Panel is not persuaded that there is sufficient evidence to draw any conclusions from this evidence, regarding the quantum of a per GJ premium, or even whether a per GJ premium is warranted.

FEI submits that a premium of $7.00 is appropriate based on historical evidence that shows the program had a relatively stable growth rate during the time that the BERC rate was effectively a $7.00 premium, customer surveys and the green energy programs of other utilities.[96]

The Panel acknowledges that FEI's program had a relatively stable growth rate during the time that the BERC rate was effectively a $7.00 premium, although as previously noted, the evidence shows that total revenues were as high or higher at other premium points.

With regard to FEI's customer research, the Panel accepts that at the time of the 2012 survey customers were willing to pay a premium of $7.00 above what was then the CCRA rate. However, there is no evidence regarding what range of CCRA rates over which customers would be willing to pay this $7 premium. Further, there is no evidence that the $7 premium maximizes revenues.

Given that we consider a revision to the current methodology warranted, in the absence of any evidence suggesting an alternative BERC premium, and noting the support of BCSEA and BCOAPO, the Panel approves a premium of $7 per GJ above the Conventional Gas Cost as the Short Term BERC Rate. The Panel considers the existing BERC of $14.414/GJ is too high. Therefore, in our view, this methodology and the premium of $7 is just and reasonable because, at the current Conventional Gas Cost, it yields a Short Term BERC Rate that is below the existing BERC yet still allows for recovery of some of the biogas acquisition costs that would otherwise be charged to non RNG customers**.** In section 4.6.2 of this decision, we lay out requirements for FEI to conduct further analysis to determine whether this premium is actually maximizing revenues and not just increasing sales of biomethane.

Further, the Panel approves the Long Term BERC Rate to be set at a $1 per GJ discount to the Short Term BERC Rate, subject to the further determinations in section 4.1 of this decision. The Panel accepts FEI's evidence that there is a burner tip price point at about $10.00 per GJ that is economic for long term customers, and that a $1 discount from the Short Term BERC Rate would result in a Long Term BERC Rate in this range given the current Conventional Gas Cost.

4.1.4 Floor prices and ceiling prices

The Panel sought submissions on the imposition of a floor ceiling and a price ceiling for both the Short Term BERC Rate and Long Term BERC Rate.

[96] FEI Final Argument, p. 7.

FEI supplemental argument

FEI submits that "[t]he imposition of a floor price will potentially increase the premium over the commodity rate over the $7 premium proposed by FEI.…FEI's $7 premium is neither too high, which would discourage participation, nor too low, which would not maximize the potential revenue from voluntary customers."[97] FEI believes that "a floor price that results in a premium of much more than $7 could reduce demand from voluntary customers. FEI, therefore, does not believe that a floor price is warranted."[98]

FEI also does not believe that the imposition of a ceiling price is warranted at this time. In its view, the purpose of adopting the market-based rate is not to subsidize one group of customers or the other, but to recover the costs of the program from voluntary customers to the extent possible in order to minimize the rate impact on non-biomethane customers. It submits that "[s]ince biomethane customers receive the benefit of a market based BERC rate that recovers less than the cost of the biomethane supply and program costs, it is symmetrical that they also bear the burden if the market based BERC rate recovers more than those costs".[99]

However, FEI "recognizes that such higher prices may have a negative impact on customer additions and retention and ultimately the demand for biomethane,"[100] although it "notes that this is unlikely to occur in the near term, since the price of natural gas and/or the carbon tax would have to increase significantly for FEI's proposed market rate to exceed the cost of biomethane supply and program costs. FEI, therefore, believes that setting a ceiling at this time is not needed and potentially premature. Instead, FEI proposes to monitor the response of biomethane customers to future increases in the BERC rate (due to increases in the price of natural gas and/or the carbon tax), and bring forward a proposal for a ceiling price for the Commission's consideration should the higher prices have a negative impact on biomethane demand."[101]

In the event the Commission does set a floor price, FEIs recommends a fixed dollar amount until subsequently adjusted, specifically $10 for the short term rate and $9 for the long term rate.[102]

Intervener supplemental argument

BCSEA submits that "it is impossible to know in advance that a BERC floor price would be a necessary or desirable response to an extremely low natural gas price, or that a BERC ceiling price would be a necessary or desirable response to an extremely high natural gas price." It also submits that the concept of the RNG product being a notional blend is already fairly abstract and is concerned that the BERC rate does not become overly complicated. In its view, "it would be undesirable to further complicate the BERC pricing in the absence of confidence that pre-defining floor and ceiling prices would obviate a Commission review of BERC pricing in the event of extreme gas prices."[103]

BCOAPO "does not believe it is necessary for the Commission to set a floor or ceiling price applicable to Renewable Natural Gas (RNG). Although there are potential benefits to doing so, these benefits must be

[97] FEI Supplemental Argument, p. 1.
[98] Ibid.
[99] Ibid, pp. 1–2.
[100] FFEI Supplemental Argument, p. 2.
[101] Ibid.
[102] Ibid, p. 2.
[103] BCSEA Supplemental Argument, p. 1.

weighed against the potential detriments." BCOAPO further submits that "any low/high price band that is implemented should be wide enough that the BERC price as proposed by FEI would fall outside the band only in exceptional circumstances, and not during conditions of normal market volatility or moderate price changes." In the view of BCOAPO "any floor/ceiling should be set at fixed dollar amounts and not be a function of the current BERC rate setting methodology."[104]

In CEC's view "it is appropriate to establish both floor and ceiling prices for the BERC rate in order to ensure that the Renewable Natural Gas service recovers its costs as soon as possible from voluntary customers, and limits the burden on the non-bypass customer base."[105] It submits that "the appropriate ceiling price for the BERC rate is one which recovers the full cost of service for the Renewable Natural Gas (RNG) service, and would reasonably be calculated as the BERC rate is calculated presently."[106] CEC submits that "a floor price is necessary in order to avoid extraordinary subsidies from non-bypass customers that exceed the cost of providing the service altogether were it to be developed and simply included in the conventional natural gas supply and recovered in non-bypass customer rates."[107]

Panel discussion

The Panel does not consider a floor and ceiling price on the Short Term BERC Rate to be warranted and declines to impose either on the Short Term BERC Rate. We agree with BCSEA that a floor and ceiling price could result in an unnecessarily complicated pricing structure that may potentially dissuade potential RNG customers.

An increase of sufficient quantity in the Conventional Gas Cost could result in a Short Term BERC Rate higher than the current BERC rate of $14.414. It is generally felt by parties to this proceeding, and the Panel accepts that at this rate, demand for biomethane could substantially diminish. Therefore should this BERC rate be reached in the future, using the pricing mechanism proposed, sales of biomethane could be reduced substantially, thereby potentially reducing revenues from the sale of biomethane. A ceiling price could protect against this. However, we agree with FEI that in that eventuality FEI can bring forward a proposal for a ceiling price.

The Panel will consider the issue of floor price for the Long Term Contract offering in section 4.2.2.

4.2 Long Term Contract offering

With regard to the Long Term Contract offering, FEI is only seeking approval of the proposed $1/GJ discount from the Short Term BERC Rate and not the other terms and conditions of this offering for which FEI intends to negotiate individually with prospective customers. FEI proposes to file each long-term contract for Commission review and approval as a tariff supplement as it is executed. Although FEI has provided some of the terms and conditions that may be incorporated into these contracts, FEI does not wish to have the Commission prescribe any terms and conditions other than the Long Term BERC Rate (i.e. the level of the discount off the Short Term BERC Rate).

[104] BCOAPO Supplemental Argument, p. 1.
[105] CEC Supplemental Argument, p. 1.
[106] Ibid.
[107] Ibid.

In this section the Panel examines the issue of whether it is sufficient and/or appropriate to approve only the Long Term BERC Rate and leave the Commission review and approval of the remaining terms and conditions for when FEI files each of the individual executed long-term contracts for approval as a tariff supplement. The questions is whether the Panel should be more prescriptive than requested by FEI in the Application either by establishing the minimum terms and conditions for eligibility for the Long Term BERC Rate or by setting out the criteria under which the long-term contract would be evaluated once it is filed.

Also included in this section is clarification regarding the customers eligible for the Long Term Contract offering.

4.2.1 What are the appropriate minimum terms and conditions?

The only parameter that FEI is seeking approval of in this Application in regard to the Long-Term BERC Rate offering is the Long Term Contract BERC Rate that will set the initial biomethane price at the time the contract is executed. It does not request approval of any terms and conditions of the long term contracts. FEI submits that it "is concerned that being prescriptive about the terms of a long-term contract could exclude potential customers prematurely when FEI is trying to develop this aspect of the biomethane program."[108] However, in Table 7-1 of the Application FEI outlines some of the possible terms and conditions:

Table 4 – Summary of Long Term Contract Terms and Conditions[109]

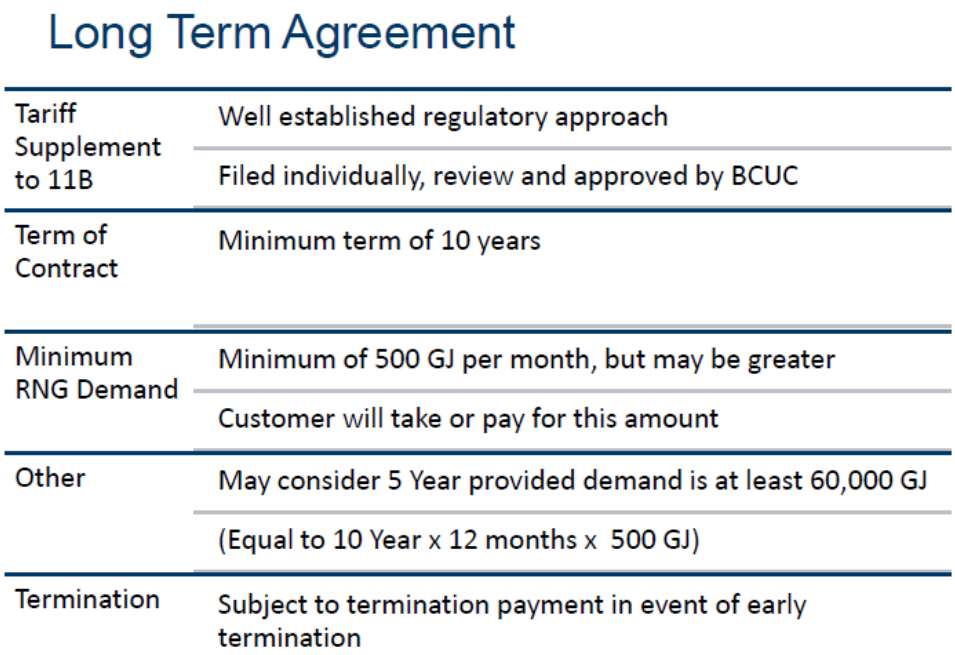
Topic	Notes
Contract Length	• 10 year term as standard, with evergreen option (yearly roll over) available at the end of the term subject to approval of both parties • Five year term possible if volume meets or exceeds ten years multiplied by 500GJ per month • Contract term cannot exceed existing FEI supply contracts
Early Termination Provision	• Early termination possible subject to agreement by both parties.[42] • Standard FEI curtailment guidelines set out in Rate11B. • Customer must 'take or pay' to receive lower rate (may be used to prevent any stranded asset cost)
Quantity	• Individual contract quantities will be negotiated based on customer requirements and FEI available supply
Quantity Exceeded or Not Met	• Volumes not met by FEI would be subject to existing R11B curtailment rules; replacement with credits or a penalty as defined by the contract
Rate Escalation	• Rate to increase at 50% of the Canadian General CPI effective January 1 each year.

The nature of these terms and conditions were explored in a number of Commission IRs[110] and at the SRP.[111]

[108] FEI Final Argument, p. 9.
[109] Exhibit B-1, p. 47.
[110] Exhibit B-5, BCUC IR 1.26 through 1.28.
[111] Transcript Vol. 2, pp. 174–196.

In its presentation at the SRP FEI summarized the Long Term Contract offering as follows:

Figure 6 – Long Term Contract Offering[112]



Long Term Agreement

Tariff Supplement to 11B	Well established regulatory approach
	Filed individually, review and approved by BCUC
Term of Contract	Minimum term of 10 years
Minimum RNG Demand	Minimum of 500 GJ per month, but may be greater
	Customer will take or pay for this amount
Other	May consider 5 Year provided demand is at least 60,000 GJ
	(Equal to 10 Year x 12 months x 500 GJ)
Termination	Subject to termination payment in event of early termination

For information and illustrative purposes FEI filed a draft version of "Tariff Supplement No. K-1, Biomethane Long-Term Large Volume Interruptible Long Term Sales Agreement, Rate Schedule 11B" together with FEI's responses to the technical questions for the SRP. [113] FEI states this draft tariff supplement was drafted as part of ongoing negotiations with one particular customer. FEI states it provided the draft as an indication of some of the key provisions such a tariff supplement will likely cover. The sample tariff supplement provides little further detail regarding the terms and conditions however it does define "Long Term Biomethane Service" as "the Biomethane Service under Rate Schedule 11B with a minimum Contract Term of 5 years or more and a specified Minimum Annual Quantity for each Year of the Contract Term."[114]

FEI acknowledges that the initial terms and conditions will tend to set the bar for what terms and conditions may be negotiated in future:

> If there's a contract that's been approved and it's in the public domain, the next customer will know that, and that will inform part of how they negotiate. And so you would expect that whatever is decided on that first contract, those terms are something that now will be explored on the next contract.[115]

FEI argues that setting the Long Term BERC Rate avoids differential treatment on the key term of the contract (i.e. the price of the biomethane) and that by not prescribing any other terms and conditions this provides FEI

[112] Exhibit B-10, p. 9.
[113] Exhibit B-9, Tariff Supplement K-1.
[114] Ibid, Original p. 2.
[115] Transcript Vol. 2, p. 176.

with the flexibility to negotiate terms with potential customers without excluding customers prematurely by, for instance, setting a hard limit on the volume or length of term. FEI submits that the proposed BERC rate methodology is just and reasonable and should be approved.[116]

In the SRP, FEI acknowledged a concern raised that offering different minimum take amounts and minimum terms from one customer to the next might be considered discriminatory and agree this would be something the Commission might consider in its review of the contract.[117]

When asked if it would be helpful to FEI if the Commission specified some of the terms and conditions, FEI indicated it could be an option for the Commission to specify minimum volumes and terms for the Long Term Contract offering as a threshold or gate and that specification might be acceptable to FEI.[118]

Intervener argument

BCSEA does not weigh in regarding the specific length of term and volume commitment that would be appropriate.

CEC submits that the rate design for the long term offering for larger customers connected to term and volume is appropriate and support FEI's approach but submits that "a single threshold is inappropriate for the price trade-off versus the certainty for the full potential ranges for contract term and volume." CEC recommends a formulaic approach based on a value for the magnitude of price certainty.[119]

BCOAPO submits it is "not a feasible way to proceed [without being prescriptive regarding the terms] and the Commission should specify minimums for duration and monthly volumes that will be required to constitute a 'long term contract.'"[120] BCOAPO references comments from the SRP noting that ratemaking principles require that the treatment of ratepayers not be unduly discriminatory. BCOAPO submits "FEI is proposing to give a better rate to a certain type of customer without defining what criteria that customer must meet. To define the criteria as being a 'long term, large volume' customer is meaningless when there is no definition of what constitutes 'long term' or 'large volume.'"[121] BCOAPO submits that it does not object to setting the minimum long term contract requirements below the "indicative" minimums described in the Application and suggests FEI propose minimum requirements.[122]

FEI reply

In reply to BCOAPO's submission regarding potential for discrimination, FEI submits its long-term contract proposal is a reasonable approach in the circumstances and that the Commission can address any concerns related to undue discrimination on a case-by-case basis when contracts are filed for approval.[123]

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[116] FEI Final Argument, pp. 9–10.
[117] Transcript Vol. 2, p. 181.
[118] Ibid, p. 187 .
[119] CEC Final Argument, p. 26
[120] BCOAPO Final Argument, p. 3.
[121] Ibid.
[122] Ibid., pp. 3–4.
[123] FEI Reply Argument, p. 1.

With regard to CEC's recommendation of a formulaic approach, FEI submits that "the development of a complex, formulaic rate structure, as the CEC appears to be suggesting, would require time and cost, but would not lead to more customers or generate any more revenue."[124]

Intervener supplemental argument

BCOAPO weighed in on the issue of the term of the Long-Term Contract offering when considering the concept of floor and ceiling prices:

> An alternative to requiring triggers or a price floor/ceiling in a long term contract is to constrain the duration of the contract. That is, BCOAPO previously argued that the Commission should specify the key terms for long term contracts that qualify for the $1.00/GJ discount. One such key term [would] be that the duration of the long term contract be no more than 5 years, for example. This would allow the long term contract rate to be adjusted on a somewhat regular basis, thereby mitigating the impact of major market price changes.[125]

FEI supplemental reply

In response to BCOAPO's suggestion, that the long-term contracts be limited to five years as an alternative method to floor and ceiling prices. FEI expressed concerns about the impact on potential long-term contracts if the term were to be limited to less than 10 years:

> In particular, the prospect of a limiting long term contracts to 5 years results in no certainty in price beyond five years, even though the customer may have a much longer time horizon for its project. Removing long term price certainty would make it more difficult for FEI to successfully negotiate long term contracts. The loss of even a single long term customer could result in significantly reduced biomethane revenues. Again, any potential benefit of including a floor price or restricting the length of long term contracts less than 10 years is heavily outweighed by the associated detriments, due to the risk that long term customers could refuse to enter into long term contracts for biomethane [126]

Commission determination

In order for a contract to be eligible for the Long Term BERC Rate, the contract must be for a commitment to purchase no less than 60,000 GJ in aggregate over the term of the contract and must be for a term of no less than five years and no more than ten years.

The Panel recognizes that FEI is at the early stages of evaluating the appropriate terms and conditions and that prescribing an extensive set of terms and conditions at this time may result in potential long-term customers being prematurely excluded. That said, the Panel considers it appropriate to establish parameters on contract volumes and duration in order to clearly set out the criteria upon which a customer is eligible to receive the discounted rate.

Regarding aggregate contract volumes, the Panel agrees with the emerging consensus amongst interveners and FEI, that a minimum take commitment in the form of a combination of term and monthly quantity is

[124] FEI Reply Argument, p. 17
[125] BCOAPO Supplemental Argument, p. 4.
[126] FEI Supplemental Reply Argument, p. 3.

appropriate. In the SRP, it appeared that parties were in general agreement that in addition to FEI's proposed ten year term at 500 GJ/month (totalling a minimum take of 60,000 GJ over the term of the contract) being an appropriate threshold, a contract stipulating five-year term at 1000 GJ/month minimum commitment (i.e. equating to the 60,000 GJ total) would also be reasonable.

As to contract duration, the Panel is of the view that, in order to realize FEI's stated benefit of reduced administration and marketing and a firm commitment to purchase biomethane, the minimum term should be no less than five years. The Panel also considers it appropriate to set a maximum duration for the contract. Much can change over a long duration in regard to government policy, RNG supply and cost of supply, and overall demand for RNG. In setting the maximum duration of ten years, we have considered the submission of FEI that "restriction on the length of long term contracts less than 10 years would result in increased revenues from voluntary customers".

The Panel notes that all contract terms, including those not specified as part of this Decision will be subject to a complete review by the Commission pursuant to sections 59 to 61 of the UCA when FEI files the contract for approval as a tariff supplement. The Panel expects FEI will address the issue of discriminatory treatment of long term customers when it files each contract and that the Commission would consider it at that time.

4.2.2 Floor price for long-term contracts

The proceeding explored the question of establishing floor prices for the long-term contract. More specifically, two types of floor prices were considered: a minimum price at which any new long-term contract could be set (Minimum Contract Strike Price) and a minimum price during the term of an existing contract (Contract Floor Price). These issues will be addressed sequentially in the following two subsections.

Parties' submissions on floor prices for both short and long term contracts has been summarized in section 4.1.4, and is therefore not replicated here.

4.2.2.1 Minimum Contract Strike Price

Commission determination

For the reasons set out below, the Panel determines that long term contracts shall be subject to a Minimum Contract Strike Price of $10/GJ. For greater certainty, long term contract prices shall be set at the maximum of the indicated Long Term BERC Rate at the time of signing and $10 per GJ.

In our view, a strike price that is set at an amount that long term customers have demonstrated that they are willing to pay is both fair and reasonable because it will contribute to the maximization of revenues while still providing long term customers with a significant discount over the cost of acquisition of biomethane.

The Panel is careful to note that the objective of this frame work is to maximize total revenue from voluntary RNG sales, and not to maximize total volume. And as previously commented, the evidence on price elasticity contains many confounding factors and is not clear that higher prices translate into lower total revenues. In the context of maximizing revenue from long term customers, FEI has indicated that it was reasonably confident that it could secure long term RNG customers if this Application was approved by the Commission. Of note, at the time of filing the Application, the proposed pricing mechanism would have translated into a long term RNG

price in excess of $10.[127] Further, there is evidence on the record concerning rates that potential long term customers may be willing to pay. The letter provided by CanGaz states that "[t]he project's financial model indicated a viable RNG price range from $8.00 CAN to $12.00 CAN per GJ."[128] In addition, UBC indicates that it "approved a price of $11.69 /GJ" (although they were under the impression that included delivery costs of $2.34).[129]

The Panel acknowledges BCSEA's argument that a strike price may complicate an already complex offering. However, parties to long-term contracts are commercial, industrial or large institutional customers that have sufficient resources to conduct the due diligence required to enter into long term contracts. Therefore, given the nature of these contracts, these parties are required to be generally sophisticated so we do not find the complexity to be a compelling enough reason to not impose a floor price. We do, however, acknowledge that a formula driven strike price may be unnecessarily complex. Although a fixed strike price may require periodic adjustment and is therefore not as efficient from a regulatory point of view, we are of the view that this reduction in regulatory efficiency is warranted for the sake of simplicity.

4.2.2.2 Contract floor price

FEI proposes that the price during any long term contract will remain fixed during the life of a contract, subject only to the possibility of an inflation escalation clause if applicable.[130] FEI further states that the purpose of the long term offering is to provide price certainty, and therefore price changes during the contract would run contrary to that objective.[131]

FEI argues that including any price adjustment mechanisms into a long term contract defeats a key purpose of the offering (i.e. price certainty in exchange for a commitment to purchase a fixed volume over a fixed period) and it is therefore "essential that the long-term contract be set for the length of the contract term".[132]

Intervener argument

BCOAPO discusses the pros and cons of inserting triggers into the contracts to allow defined price changes in cases where certain events occurred (e.g. if the CCRA rate goes above the negotiated contract rate). BCOAPO suggests that the potential benefits of such a trigger must be set against two things: the low probability of the CCRA price rising above the trigger level in the next several years; and the possible deterrent to customers represented by the introduction of price uncertainty into the contract. As an alternative to inserting triggers into the contract, BCOAPO raises the idea of limiting the maximum duration of contracts (e.g. to five years) as a way to mitigate the impact of major market price changes while still allowing the price to remain fixed during the contract term.[133]

CEC and BCOAPO provide no specific comments on price adjustments during the duration of long term contracts (i.e. beyond the comments each provides on price floors and ceilings in general).

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[127] The long term BERC rate at the time the Application was filed would have been $12.130 ($4.640+$1.4898+$6).
[128] Exhibit B-1, Appendix D.
[129] Ibid.
[130] Exhibit B-5, BCUC IR 1.26.1.
[131] Ibid., BCUC IR 1.26.2.
[132] FEI Supplemental Argument, p. 5.
[133] BCOAPO Supplemental Argument, pp.3–4.

FEI reply

In its supplemental reply argument, FEI states its opposition to either a trigger floor price or constraining the duration of contracts to five years. It argues that both alternatives remove the long term price certainty that long term customers require. And in particular, the five-year limit runs counter to a customers' desire for price certainty in situations where their project has a much longer time horizon.[134]

Commission determination

The Panel directs that long term contracts must include a Contract Floor Price provision that results in the price of RNG in any period beyond year five of a contract that is not less than the then prevailing Conventional Gas Cost.

The Panel recognizes that price certainty is an important benefit for long term customers, and that any constraint or diminution of that price certainty will be seen by those customers as a diminution in the overall benefits of any contract. The Panel is also mindful that this program must serve not only the interests of long term customers, but also the interests of FEI's other customers. We consider it to be unduly preferential to long term RNG buyers that they could end up with an enduring benefit (however likely or unlikely that occurrence may be) of buying RNG at prices below what everyone else is paying for conventional gas.

We agree that constraining contracts to a maximum term of five years is too confining, but we are not prepared to provide customers with the possibility of a guaranteed hedge against conventional price increases and carbon tax changes for as long as ten years. Hence, our decision to find the middle ground of allowing price certainty for five years, with a conventional gas price floor thereafter.

4.2.3 Eligible customers

It is not clear from the description in the Application, or from the proposed blackline tariff changes, which customers FEI intends to be eligible for the Long Term Contract offering.

Biomethane service is currently available to both sales and transportation service customers. Under Rate Schedules 1B, 2B, 3B and 5B, sales service customers can elect to purchase some portion of their commodity as biomethane. Transportation service customers (i.e. Rate Schedules 22, 23, 25, 26 and 27) can purchase on-system biomethane under Rate Schedule 11B to either supplement or fully replace conventional natural gas supply that the transportation service customer (or its Shipper Agent) would otherwise purchase off-system.

In the Application, FEI describes the Long Term Contract offering as "for larger commercial and industrial customers who wish to be able to lock in their RNG service for a fixed length term. This offering has a minimum term of 10 years and a fixed volume commitment of 500 GJs per month."[135] FEI does not appear to restrict the Long Term Contract offering to a particular customer rate class. In the blackline version of the proposed changes to section 28.4 b) of the General Terms and Conditions which describes the pricing for the long term offering, the proposed tariff wording states "For those Customers who have entered into a Service Agreement with FortisBC Energy for Biomethane under an applicable tariff supplement …."[136]

[134] FEI Supplemental Reply Argument, pp.2–3.
[135] Exhibit B-1, p. 2.
[136] Exhibit B-5, Attachment 4.1.1, p. First Revision of Page 28-2.

In the SRP, in responding to questions regarding which customers would be eligible, FEI does not appear to have contemplated the prospect of the Long Term Contract offering applying for customers other than transportation service customers.[137] When asked whether a Rate Schedule 5 sales customer would be eligible, FEI replies that it had not fully investigated the applicability to Rate Schedule 5 customers as the interest was coming from transportation service customers so the focus has been on a tariff supplement that fits with Rate Schedule 11B.[138]

With regard to whether there was any reason why a sales customer would not be eligible, FEI responds that technically there is no reason but it has been structured based on Rate Schedule 11B because the interest is mainly from Rate Schedule 25 and 27 customers and the tariff language is more in line with being a transportation service customer.[139]

Similarly, when asked whether a marketer as Shipper Agent supplying a group of transportation customers would be eligible FEI replies that if the Shipper Agent is willing to take a long term commitment FEI does not see that they would be precluded from entering into a long-term biomethane contract. [140]

FEI accepts that the proposed blackline changes to section 28.4(b) of the General Terms and Conditions (GT&C) filed as Attachment 4.1.1 of Exhibit B-5 do not accurately describe the Long Term Contract BERC rate setting methodology and will file corrected section 28 GT&C in compliance with directions from the Commission in its decision.[141]

Intervener argument

Interveners did not make submissions in regard to eligibility of customers for the Long Term Contract offering.

Commission determination

There is no reason why the Long Term Contract offering should only be available for transportation service customers through an on-system sales tariff modelled on Rate Schedule 11B. Any of FEI's customers who can commit to the firm purchase of the required minimum quantity of RNG should be eligible for the long term BERC rate offering. In addition to transportation service contracts supplied by FEI acting as Shipper Agent, this includes bundled sales customers, transportation service customers directly, transportation service customers supplied by a Shipper Agent other than FEI and marketers (i.e. Shipper Agents) supplying a group of transportation service customers. In addition, a customer who has committed directly to a long term BERC contract should be able to take the contract with them if they move between transportation and bundled sales service or from one Shipper Agent to another over the term of the commitment to buy RNG.

The Panel directs FEI to make the Long Term Contract offering available to all customers willing to commit to the required minimum take term and quantities. In the event FEI determines there are barriers that prevent FEI from providing access for customers other than transportation service customers, FEI is directed to file a

[137] Transcript Vol. 2, pp. 187–191.
[138] Ibid., p. 187.
[139] Ibid., p. 188.
[140] Ibid., p. 190.
[141] FEI Final Argument, pp. 1–2.

report with the Commission describing the nature of the barriers and a discussion of the proposed method(s) for overcoming these barriers.

FEI is directed to file blackline changes to section 28 of the FEI GT&C and Rate Schedules 1B, 2B, 3B 5B and 11B reflecting the BERC rate methodology approved in this decision. These tariff pages are to be filed within 30 days of the date of this decision.

4.2.4 Low volume customers willing to commit to a term

FEI's proposed Long Term Contract offering is intended for customers who commit not only to a term but to the purchase of a larger quantity than would be typically be used by lower volume customers such as residential customers.

CEC explored in the SRP whether there was the potential for a long-term discount for lower volume customers that are willing to commit to RNG for a term.[142] FEI did not rule this out as something that could be considered in the future but submits that introducing this option would add complexity and system administration and implementation costs.[143]

Intervener argument

BCSEA agreed that the idea of introducing a discount for long-term purchases of low volumes of RNG should not stand in the way of approving the current Application[144]

CEC and BCOAPO make no submissions with regard to extending the discount to low volume customers who might wish to commit to a term.

Panel discussion

The Panel is of the view that although there may potentially be further BERC rate offe rings developed by FEI in the future to increase voluntary RNG sales, it is not appropriate to further complicate FEI's biomethane service offerings at this time by increasing the nature of the offerings beyond those applied for by FEI in the Application. FEI is encouraged to review and evaluate the potential for additional offerings in future.

4.2.5 Regulatory review and approval process

FEI proposes it will file long term contracts with the Commission for approval as individual tariff supplements as they are executed.[145] FEI anticipates it will only enter into a handful of long term contracts.[146]

Panel discussion

The Panel notes that approval of the specific terms will be on a contract-by-contract basis as FEI executes each contract and files it as a tariff supplement for approval as a rate as required under sections 59 to 61 of the UCA. The appropriateness of the terms and conditions negotiated by FEI, including whether they are considered to be

[142] Transcript Vol. 2, p. 73.
[143] FEI Final Argument, p. 11.
[144] BCSEA Final Argument, p. 7.
[145] Exhibit B-5, BCUC IR 1.4.1.
[146] Transcript Vol. 2, p. 182.

an unjust, unreasonable, unduly discriminatory or unduly preferential rate under section 59 of the UCA, will be determined by the Commission review of the application to approve the contract as a tariff supplement.

Under section 62 of the UCA rate schedules, including tariff supplements, filed with the Commission must be open and available to the public.

4.3 Transfer of aged inventory to MCRA

FEI is seeking approval in principle that it may apply to transfer inventory that is greater than 18 months in age and/or greater than 250,000 GJs from the BVA to the MCRA at the prevailing CCRA commodity rate.

The potential need to transfer unsold biomethane volumes from the BVA to the MCRA was recognized by the Commission in the 2013 Decision which states that "In the event of a persistent inability to sell biomethane, the Panel is supportive of FEI's proposal to transfer balances from the BVA to the MCRA, although as a last resort only."[147]

In this section the Panel examines whether the thresholds established by FEI are appropriate, whether it should be to FEI's discretion whether to make an application for a transfer once the threshold(s) have been exceeded and the extent to which the transfer may result in a lost opportunity to capture the value of the associated environmental attributes.

4.3.1 Volume and age thresholds

FEI is seeking approval in principle to apply to transfer unsold biomethane inventory that is greater than 18 months in age and/or 250,000 GJs in the Biomethane Variance Account (BVA) to the MCRA at the prevailing CCRA rate on January 1 each year.[148] FEI will monitor the balance between supply and demand throughout the year and if a situation warrants an additional transfer, FEI will apply to the Commission for approval to do so.[149] If FEI determines biomethane supply is insufficient to meet forecast demand FEI proposes that FEI would have the option not to apply for the transfer.[150] Alternatively, FEI states the transfer would be subject to ensuring FEI retains at least a six month supply for forecast demand.[151]

FEI submits that the proposal to transfer unsold biomethane inventory was guided by the following key guiding principles:

- FEI should seek to keep the potential volume and value of inventory at a level that minimizes the annual impact on natural gas delivery and commodity rates;
- FEI should seek to have sufficient RNG to meet future commitments to supply RNG to Long Term customers;
- FEI should seek to keep rate impacts stable on a year to year basis; and
- FEI should recognize the generally accepted industry practice that the vintage of "green energy" has a limit of approximately 2 years before it is considered stale.[152]

[147] 2013 Decision, p. 68.
[148] FEI Final Argument, p. 1.
[149] Exhibit B-1, p. 48.
[150] FEI Final Argument, p. 12.
[151] Exhibit B-1, p. 47.
[152] FEI Final Argument, p. 12.

The transfer of aged inventory from the BVA to the MCRA at the prevailing CCRA rate has effectively the same dollar impact on the MCRA balance.[153] FEI confirms that at the time this notional inventory of biomethane was originally delivered onto the FEI system it would have displaced conventional gas purchases. In other words, FEI would have required a lesser volume of conventional gas supply on that day to balance the system and meet the daily load requirement of its non-RNG customers.[154]

FEI forecasts the quantities and dollar value of the transfer of unsold biomethane, assuming Commission approval of the proposed BERC rate methodology, as follows:

Table 5 – Forecast Transfers of Unsold Biomethane to MCRA[155]

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
GJs >18 mo	0	0	346,070	1,013,201	1,450,737	1,329,116	879,122	656,035	865,401	1,278,282
Forecast CCRC ($/GJ)	2.83	2.97	3.10	3.27	3.43	3.69	3.90	4.10	4.18	4.26
$000 transfer to BVA	0	0	(1,073)	(3,308)	(4,970)	(4,910)	(3,428)	(2,687)	(3,616)	(5,448)

The following extract from the live spreadsheet that is Attachment 51.1.1 of Exhibit B-9 provides a perspective on the portion of the overall BVA volume balance the forecast inventory transfers represents.

Table 6 – Forecast BVA Balances[156]

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Notional Biomethane Gas Balance (GJ)											
Opening Balance	79,914	101,657	246,048	647,483	1,314,614	1,752,150	1,630,529	1,180,535	957,448	1,166,814	1,579,695
Purchases (reduced by 14.5% Kelowna lost gas)	178,536	317,197	597,845	879,185	1,010,105	1,132,670	1,256,090	1,378,442	1,378,442	1,378,442	1,378,442
Write-off of aged inventory	-	-	-	-	(346,070)	(1,013,201)	(1,450,737)	(1,329,116)	(879,122)	(656,035)	(865,401)
Biomethane Sales	(156,793)	(172,806)	(196,410)	(212,054)	(226,499)	(241,090)	(255,347)	(272,413)	(289,954)	(309,526)	(321,183)
Closing Balance	**101,657**	**246,048**	**647,483**	**1,314,614**	**1,752,150**	**1,630,529**	**1,180,535**	**957,448**	**1,166,814**	**1,579,695**	**1,771,553**

FEI notes that the current age of the inventory in the BVA is five to six months.[157]

4.3.2 Potential loss of value of environmental attributes

In the Application FEI initially states that to the extent that FEI is able to monetize credits or take advantage of carbon tax savings from this transfer, any recoveries will be captured in the Commission approved Emissions Regulations deferral account for the benefit of all customers.[158]

FEI confirmed that under current tax laws, the transfer of biomethane inventory to the MCRA for sale as conventional natural gas would result in the loss of the associated environmental benefits.[159]

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[153] Exhibit B-9, BCUC IR 2.49.1.
[154] Ibid, BCUC IR 2.49.2.
[155] Exhibit B-9, Attachment 51.1, Schedule 3.
[156] Exhibit B-9, Attachment 51.1, Live spreadsheet, Tab Backup and COS Information.
[157] Transcript Vol. 2, p. 89.
[158] Exhibit B-1, p. 48.
[159] FEI Final Argument, p. 13.

FEI states that with respect to the vintage of the biomethane inventory, there is no defined protocol within Canada, but in the US Renewable Identification Numbers normally expire after two years, and FEI believes it is prudent to conceptually align with this generally accepted industry practice. With regard to the importance of ensuring the biomethane inventory in the BVA retains the integrity of its environmental attributes, FEI notes that UBC has raised concerns about the vintage of the biomethane and long term customers will want assurances that the biomethane will remain claimable over the life of the contracts.[160]

At the SRP, parties expressed concern about the potential "lost opportunity" that may arise from transferring biomethane inventory to the MCRA where it would be sold as conventional natural gas. FEI noted it was exploring ways to be able to claim the carbon tax credit after moving the inventory to the MCRA.[161] Transferring unsold biomethane greater than 18 months in age would allow FEI time to potentially claim carbon credits for the benefit of customers within the two year time frame. One possible way to do this is by FEI notionally consuming the biomethane as "own use" gas. While current tax regulations do not allow for this, FEI is working toward having this type of consumption recognized as eligible for the carbon tax credit.[162]

In final argument, FEI summarizes its intentions regarding the information it intends to include in an application as follows:

> When FEI applies for a transfer of any aged inventory, it will provide the Commission with an update on any regulations applicable to the age of FEI's biomethane inventory and the demand forecast over the coming year compared to forecast supply. (Draft Transcript, pp. 88-91) FEI submits that this information should provide a sufficient basis to satisfy the Commission as to whether FEI is in fact foregoing any lost opportunity to sell the biomethane it is proposing to transfer.[163]

Intervener argument

BCSEA agrees that FEI's guiding principles are appropriate and supports FEI's proposals regarding the transfer of unsold biomethane inventory, including giving FEI the flexibility to determine whether the vintage warrants transfer. BCSEA accepts FEI's explanation of the factors that apply to the vintage of the unsold biomethane submit it is best to leave flexibility in this regard rather than defining a two-year age limit.[164]

BCOAPO agrees a transfer mechanism to clear the balance in the BVA is necessary and that:

> it is important the transfer mechanism preserve the benefits associated with biomethane to the greatest extent possible. Accordingly, BCOAPO supports FEI 's proposal to, if necessary, apply to transfer unsold biomethane greater than 18 months of age to the MCRA for FEI to consume as its "own use" gas at the prevailing commodity cost rate.[165]

[160] Ibid.
[161] Transcript Vol. 2, pp. 88–91, 108–113, 204.
[162] FEI Final Argument, p. 13.
[163] Ibid.
[164] BCSEA Final Argument, pp. 7–8.
[165] BCOAPO Final Argument, p. 4.

CEC submits it is:

> concerned that transfers of inventory from the BVA account to the MCRA could result in a lost opportunity for cost-recovery through sale to potential future customers. The CEC recommends that the Commission require FEI, when it files an application for transfer of inventory from BVA to MCRA, to provide a fulsome analysis of methods and approaches to preserving the opportunity for cost-recovery benefit to FEI's other customers.[166]

FEI reply

In reply to CEC's submission, FEI submits it will file necessary and sufficient information to support an application to transfer inventory and elaborates that FEI is seeking approval of principles in this proceeding to help ensure the regulatory process to transfer inventory is efficient and cost effective.[167]

Commission determination

A key consideration when looking at the need to transfer aged or excess inventory to the MCRA is the potential loss of the ability to realize the value of the environmental attributes associated with the biomethane being transferred and this should be done based on the evidence available at the time of the application to transfer. The Commission will then assess the need for a transfer at such time as FEI makes application for an inventory transfer.

The Panel directs FEI to address the potential loss of the value of environmental attributes in any application to transfer inventory from the BVA to the MCRA, including a discussion of the steps FEI has taken to realize the value of the environmental attributes by other means than through sales to voluntary customers.

4.3.3 Regulatory review and approval process

FEI submits it will apply to the Commission for approval of any transfer of inventory from the BVA to the MCRA and when it applies for a transfer of any aged inventory, it will provide the Commission with an update on any regulations applicable to the age of FEI's biomethane inventory and the demand forecast over the coming year compared to forecast supply. FEI submits that this information should provide a sufficient basis to satisfy the Commission as to whether FEI is in fact foregoing any lost opportunity to sell the biomethane it is proposing to transfer.[168]

With regard to the nature of an application for an inventory transfer FEI first makes reference to this application in footnote 43 on page 48 of the Application which states "This may be in the form of a letter to the Commission or as part of the Quarterly Gas Cost Review Process."

Intervener argument

At the SRP CEC explored the nature of the review process asking:

> Will it be possible for you to explore a whole range alternatives in terms of how we can preserve the opportunity as opposed to lose it? As opposed to just make an application to the

[166] CEC Final Argument, p. 28.
[167] FEI Reply Argument, p. 19.
[168] FEI Final Argument, p. 13.

> Commission, it's 18 months or it's 2 years and now its time to transfer. But I'd like to see a process somewhere we've got an opportunity to explore this.[169]

In its final argument, CEC expressed concern that transfers of inventory from the BVA account to the MCRA could result in a lost opportunity for cost recovery through sale to potential future customers and recommends that the Commission require FEI, when it files an application for transfer of inventory from BVA to MCRA, to provide a fulsome analysis of methods and approaches to preserving the opportunity for cost-recovery benefit to FEI's other customers.[170]

FEI reply

In response to CEC's argument for a fulsome review, FEI submits:

> FEI will file the information that is necessary and sufficient to support its Application to transfer inventory. However, FEI is seeking approval of principles in this proceeding that will help ensure that the regulatory process to transfer inventory is efficient and cost effective. [171]

Commission determination

FEI is required to file a formal application with the Commission before unsold biomethane can be transferred from the BVA to the MCRA. The application must not be included as part of a quarterly gas cost review process. It will be left to FEI's discretion to determine when it is appropriate to make application for a transfer of biomethane from the BVA to the MCRA. **The application must to be copied to the interveners in this proceeding and the Commission will consider whether a public hearing is required once the application has been filed.**

4.4 Mechanism for transfer of costs

As a result of the forecast growth in the BVA, FEI requests, pursuant to sections 59 to 61 of the UCA, approval to amortize the forecast December 31 balance in the BVA, including the unsold biomethane premium, net of the transfer of unsold inventory and remaining supply costs, through the delivery rates of all non-bypass customers, effective January 1 of the subsequent year (BVA Balance Transfer) mechanism.[172] FEI forecasts a 2025 BVA closing balance of approximately $125 million in the absence of a BVA Balance Transfer mechanism.[173] There are three main issues with respect to the BVA Balance Transfer mechanism:

1. Is the forecast growth in the BVA balance an issue?
2. If the growth in the BVA balance is an issue, how should the balance in the BVA be recovered?
3. Does the proposed BVA Balance Transfer mechanism provide customers with an understanding of the true cost of the program?

[169] Transcript, Vol. 2, p. 108.
[170] CEC Final Argument, p. 28.
[171] FEI Reply Argument, p. 19.
[172] Exhibit B-1, pp. 1, 3.
[173] Exhibit B-9, BCUC 2.51.1.1, Attachment 51.1.1, Live Spreadsheet Tab "Summary of Alternatives and Tab BVA Forecast."

4.4.1 Forecast growth of BVA balance

FEI forecasts that the balance in the BVA will increase due to the following events:

i. The difference between the average cost of the biomethane supply and the CCRA rate multiplied by the volume of inventory transferred (Unsold Biomethane Premium) accumulating in the BVA as a result of the aged inventory transfer.[174]

ii. The difference between the cost based rate and the applicable proposed Short Term BERC Rate and Long Term BERC Rate multiplied by the RNG sales volumes accumulating in the BVA (New BERC Rate Variance).[175]

iii. The capital and operating costs for the FEI-owned interconnections and upgraders and the Biomethane program overhead costs remaining in the BVA.[176]

iv. The FEI proposal to use the closing balance (GJ's) multiplied by the Short Term BERC Rate that will be effective on January 1 as a proxy for valuing the inventory at the lower of cost or market will also result in costs accumulating in the BVA.[177]

FEI forecasts that if the current accounting treatment is maintained, the BVA will increase from $3.288 million in 2016 to $42.632 million in 2020 and to $124.629 million in 2025 (Status Quo Alternative Table 1).[178]

Table 7 – BVA Closing Balance (after tax) ($000's) [179]

Alternative	Forecast 2016	Forecast 2020	Forecast 2025
Status Quo	$3,288	$42,632	$124,629
Proposed	$2,821	$19,446	$22,609

4.4.2 BVA Balance Transfer mechanism

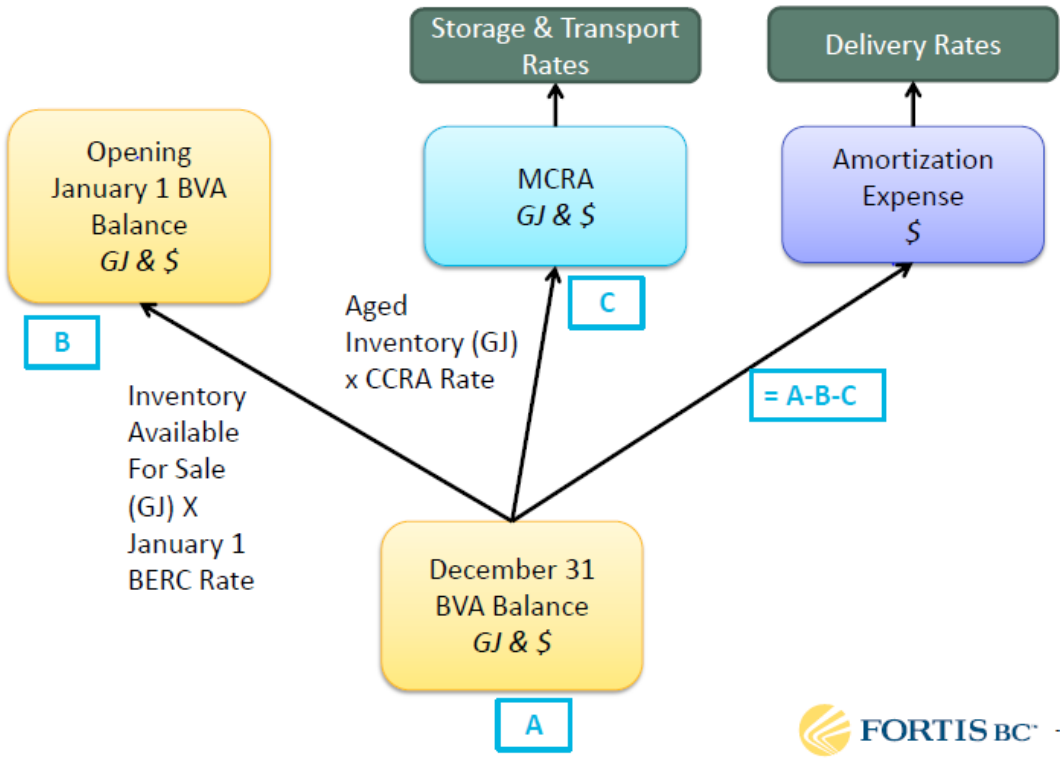
As a result of the forecast growth in the BVA, FEI is requesting approval of the BVA Balance Transfer mechanism.[180] FEI states that the BVA Balance Transfer amortization amounts would be forecast at FEI's annual review or revenue requirement proceedings, subject to true-up to the actual amortization set each year.[181] Furthermore, the BVA Balance Transfer amortization amounts will only be reviewed to the extent that the dollars in the deferral account are part of what makes up the FEI delivery rate in the PBR annual review or revenue requirement filings.[182]

The diagram below shows the proposed calculation of the BVA Balance Transfer amortization amount. The December 31 balance in the BVA (A), less the January 1 opening balance for the subsequent year (B), less the transfer of unsold inventory (C) results in the unsold biomethane premium, New BERC Rate Variance, capital and

[174] Exhibit B-1, pp. 3, 53.
[175] Ibid, p. 53.
[176] Ibid.
[177] Exhibit B-5, BCUC 1.39.1.
[178] Exhibit B-9, BCUC 2.51.1.1, Attachment 51.1.1, Live spreadsheet Tab "Summary of Alternatives."
[179] Derived from Exhibit B-9, BCUC 2.51.1.1, Attachment 51.1.1, Live Spreadsheet, Tab "Summary of Alternatives and Tab BVA Forecast."
[180] Exhibit B-1, pp. 1, 3.
[181] FEI Final Argument, p. 14.
[182] Transcript Vol. 2. pp: 209–210.

operating costs for the FEI-owned interconnections and upgraders, the Biomethane program overhead costs and the valuation the inventory at the lower of cost or market accumulating in the BVA.[183]

Figure 7 – Transfer Mechanisms[184]



Regarding the automatic amortization of the forecast December 31st balance in the BVA without the need for further approval from the Commission, FEI states:

> … the mechanism is approved, but like all costs embedded in our annual review they're subject to Commission review and approval. So, you know, by approving the delivery rates that have embedded in them the amortization expense. … it goes back to the mechanism and the concept of, you know, the approval to have the transfer, but really the dollars in the deferral account are still part of what makes up the delivery rates and our annual review and revenue requirement filings.[185]

If the BVA Balance Transfer proposal is approved, the closing balances for the BVA are forecast to be $2.82 million in 2016, $19.45 million in 2020 and $22.61 million in 2025.[186]

[183] Exhibit B-1, pp. 3, 53.
[184] Exhibit B-10, slide 17.
[185] Transcript Vol. 2, pp. 209–210.
[186] Exhibit B-9, BCUC 2.51.1.1, Attachment 51.1.1, Live spreadsheet "Summary of Alternatives", Alternative 3.

Table 8 – BVA Closing Balance (after tax) ($000's) [187]

Year	Forecast 2016	Forecast 2017	Forecast 2018	Forecast 2019	Forecast 2020
	$2,821	$7,511	$15,467	$20,897	$19,446

Year	Forecast 2021	Forecast 2022	Forecast 2023	Forecast 2024	Forecast 2025
	$14,395	$11,872	$14,698	$20,028	$22,609

From 2016 to 2025, the BVA Balance Transfer mechanism is forecast to recover of $62.309 million of Biomethane costs from non-bypass customers.[188]

Table 9 – BVA Balance Transfer Amortization ($000's) [189]

Year	Forecast 2016	Forecast 2017	Forecast 2018	Forecast 2019	Forecast 2020	Subtotal
	$756	($105)	$101	$2,569	$9,530	$12,851

Year	Forecast 2021	Forecast 2022	Forecast 2023	Forecast 2024	Forecast 2025	
	$14,718	$13,750	$9,053	$5,528	$6,409	$49,458
					Grand Total	**$62,309**

4.4.3 2013 Decision – Unsold Biomethane Premium deferral account

The 2013 Decision approved the establishment of the Unsold Biomethane Premium deferral account (UBPDA) for the accumulation and amortization of the Unsold Biomethane Premiums and directed FEI to recover the UBPDA from "from all FEI non-bypass customers, through a rate rider, on a timely basis".[190]

FEI was directed to "bring before the Commission an application for approval of the lower BERC rate ," if FEI considered it "necessary to set a lower BERC rate than would be set using the BERC rate setting methodology which includes all cost."[191] The 2013 Decision also suggested that the difference between the BERC and the fully allocated costs of acquiring the biomethane should be recovered through the UBPDA.[192]

4.4.4 2013 Decision – Rate Rider and Transparency

The 2013 Decision included the following statement with respect to cost transparency:

> …public interest is served by this program being successful. Nonetheless, the Commission Panel considers the need for transparency and an understanding of the true cost of the program to be of utmost importance.[193]

FEI submits that the BVA Balance Transfer "is consistent with the need with the need for transparency as outlined on Page 53 of the decision."[194] Regarding the need for a rate rider to provide transparency, FEI explains

[187] Ibid., Tab "BVA Forecast."
[188] Ibid., Tab "Forecast Impacts."
[189] Ibid.
[190] 2013 Decision, p. 69.
[191] 2013 Decision, p. 72.
[192] Ibid.
[193] Ibid, p. 53.
[194] Exhibit B-5, BCUC IR 1.40.1.

that from a customer perspective, there is no transparency issue, because a rate rider is not typically a separate line item on a customer's bill.[195] Rate riders are embedded in the rate on a customer's the bill; however they are shown as separate line items in the FEI tariff.[196]

4.4.5 Unsold Biomethane Premium deferral account implementation

Instead of establishing the UBPDA and the associated rate rider for the accumulation and amortization of the Unsold Biomethane Premiums, FEI proposes to amortize the Unsold Biomethane Premium amount directly from the BVA into the delivery rates of non-bypass customers.[197]

FEI proposes that if it is directed to implement the UBPDA and rate rider, the UBPDA should be a rate base deferral account with an amortization period of one year with no expiration date for the account, for as long as the Biomethane Program remains in place.[198] FEI forecasts that the UBPDA rate rider would not apply in 2015 and the 2016–2018 rate riders would be zero. The first UBPDA inventory transfer is forecast to occur on January 1, 2018, with the rate rider recovery occurring in 2019, assuming a one year lag in order for the rate rider to be based on the actual transfer.[199] FEI also states that it "is not opposed to a periodic review of the UBPDA account, but FEI does not believe that such a review is necessary."[200]

FEI argument

FEI submits that its request for approval, in principle, to amortize the forecast December 31 balance in the BVA, net of the transfer of unsold inventory and remaining supply costs, through the delivery rates of all non-bypass customers effective January 1 of the subsequent year is simple and transparent. FEI proposes to forecast the amortization amounts in its annual review or revenue requirement proceedings and true-up to the actual amortization set each year. Furthermore, FEI states that its proposal is consistent with the Company's revenue requirements process.[201]

With respect to the 2013 Decision directive for FEI "to recover any balance in the unsold biomethane premium deferral account from all non-biogas customers through a rate rider on a timely basis."[202] FEI explains that this directive does not apply, because it has never needed to recover any balances in the UBPDA.[203] Moreover, FEI states that BVA Balance Transfer will transparently track costs and eliminate the need for the UBPDA and rate rider, while appearing the same to customers on their bills.[204] FEI submits that the transfer mechanisms for managing future balances in the BVA are just and reasonable, informed by the appropriate principles and recommends approval by the Commission.[205]

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[195] Ibid.
[196] Ibid.
[197] Exhibit B-1, p. 53.
[198] Exhibit B-5, BCUC IR 1.40.2.
[199] Exhibit B-5, BCUC IR 1.40.2.1.
[200] Exhibit B-9, BCUC IR 2.55.2.
[201] FEI Final Argument, p. 14.
[202] 2013 Decision, p. 69.
[203] FEI Final Argument, p. 14.
[204] FEI Final Argument, p. 15.
[205] Ibid.

Intervener argument

BCSEA supports the approval of FEI's request as filed. In addition, BCSEA notes that the amortization amounts will be forecast at FEI's annual review or revenue requirement proceedings. Furthermore, BCSEA agrees with the FEI submission that its proposal is a simple and transparent method to recover BVA costs from non-bypass customers that is consistent with FEI's revenue requirements process.

CEC explains that if the Commission approves the Aged Inventory Transfer request, the proposed BVA Balance Transfer would be appropriate. However, if the Commission requires FEI to perform the additional rate design work on its BERC methodology proposals recommended by CEC, then CEC submits that transfers to delivery rates of non-bypass customers should be deferred until the establishment of more appropriate rate designs.[206]

BCOAPO states that the market-based BERC rate sales and Aged Inventory Transfer will cause unrecovered cost of service and Unsold Biomethane Premiums to accumulate in the BVA. As a result, a mechanism for recovering these costs is required. BCOAPO also notes that the 2013 Decision directed FEI to "recover any balance in the unsold biomethane premium deferral account from all non-bypass customers through a rate rider."[207]

BCOAPO does not object to FEI's overall proposal for the amortizing the BVA balance directly from the BVA into delivery rates of non-bypass customers. However, BCOAPO also explains that the automatic amortization of the Unsold Biomethane Premiums in the annual review process could put ratepayers at risk because the amounts to be amortized are currently unknown. Furthermore, BCOAPO noted that FEI seemed amenable to postponing the transfer of Unsold Biomethane Premiums and application for approval the Aged Inventory Transfer until 2018. As a result, BCOAPO submits that the delay is a reasonable and provides a small amount protection to of non-biomethane customers without harming FEI.[208]

FEI Reply

FEI notes that BCOAPO does not object to the overall proposal. Furthermore, FEI submits that does not have a buildup of inventory in the BVA and expects the first use of the transfer mechanism to occur in 2018. However, FEI submits that, it is important to have certainty regarding process for maintaining a reasonable BVA balances going forward.

Therefore FEI requests approval in principle of the transfer mechanisms filed in the Application and explained at the streamlined review process.[209]

Commission determination

The Panel approves FEI's request to amortize, over a one year period, the forecast December 31 balance in the BVA, net of unsold inventory and remaining supply costs, through the delivery rates of all non-bypass customers effective January 1 of the subsequent year. However, the BVA Balance Transfer mechanism and inclusion of the amortization amounts in its annual review or revenue requirement proceedings, as proposed by FEI, does not provide sufficient transparency. FEI customers, interveners and the Commission would be unable

[206] CEC Final Argument, p. 28.
[207] BCOAPO Final Argument, p. 4.
[208] Ibid.
[209] FEI Reply, p. 18.

to easily determine, among other things, the rate impact and the details of the BVA costs being amortized, if the forecast December 31st balance in the BVA is amortized through the delivery rates of all non-bypass customers effective January 1st of the subsequent year

In order to provide the transparency directed in the 2013 Decision the Panel directs that the recovery of the BVA balance be through a rate rider from FEI's non-bypass customers, effective January 1st of the subsequent year (BVA Rate Rider). Furthermore, the continuation of the FEI BVA Balance Transfer mechanism will be reviewed in the earlier of four years or an application for an inventory transfer from the BVA to the MCRA, or FEI's approach to ratemaking (i.e. PBR to cost of service).

4.5 Marketing, customer education and awareness[210]

FEI states: "[it] 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."[211]

Although FEI has not explicitly sought approval of this increased spending, at the Procedural Conference the Panel determined that the $300 thousand customer education and awareness spend was in scope for this proceeding for contextual background and discussion purposes.[212]

FEI states that this budget can be used effectively to retain existing customers, and to increase participation through increasing levels of program awareness and program understanding. FEI identifies the following channels as the most likely to achieve program marketing goals.

- Existing RNG customer communication – Newsletters, prize lottery, earned media to stimulate word of mouth and referrals
- FEI Natural Gas customer communication – RNG promotions within existing customer communication channels such as the bill to improve conversion of existing customers to RNG.
- Direct outreach – Direct mail, supplier site tours to engage more directly with customers to strengthen connections to the RNG Program.
- Sponsorships and partnership channels – Engagement in events and sponsorships that target key commercial target sectors and business types
- Digital and social media – Creation of shareable content and stimulation of interest in RNG as a discussion topic leading to improved awareness and interest
- Research – Evaluation of existing channel effectiveness to optimize and refocus education and awareness efforts accordingly.[213]

FEI provided the following estimates, under the assumption that the Application is approved.

[210] FEI and interveners appear to use the terms marketing, customer awareness and Customer education interchangeably.
[211] Exhibit B-1, p. 48.
[212] Transcript Vol. 1, p. 29.
[213] Exhibit B-1, p. 49.

Table 10 – Customer Education Cost Estimates[214]

Residential	**2015 (Total projected)**	**2016**	**2017**	**2018**	**2019**	**2020**
Increase in Customer Additions	886	1200	1200	1200	1400	1400
Customer Education ($)	$105,000	$180,000	$183,600	$187,200	$190,800	$195,000
Commercial	**2015 (Total projected)**	**2016**	**2017**	**2018**	**2019**	**2020**
Increase in Customer Additions	17	30	20	20	20	20
Customer Education ($)	$70,000	$120,000	$122,400	124,800	127,200	130,000

When asked to provide the expected increase in sales (GJs) resulting from increased customer awareness and marketing spending, FEI stated, "The increase in volume assumed in the Application is a result of both price changes and an expected increase in customer awareness and education spending. It is not possible to determine the increase in volume attributable to customer awareness alone."[215]

During the SRP, CEC raised the question of how FEI has evaluated the effectiveness of the customer education and awareness spending. In response, FEI stated that due to cost considerations, to date it has not done much research into the effectiveness of its customer education and awareness spending. However, the company was open to the idea, stating, "…it may be something that we do in the future."[216]

Intervener argument

All three intervener groups indicated general support of the proposed $300,000 customer education and awareness spend.[217]

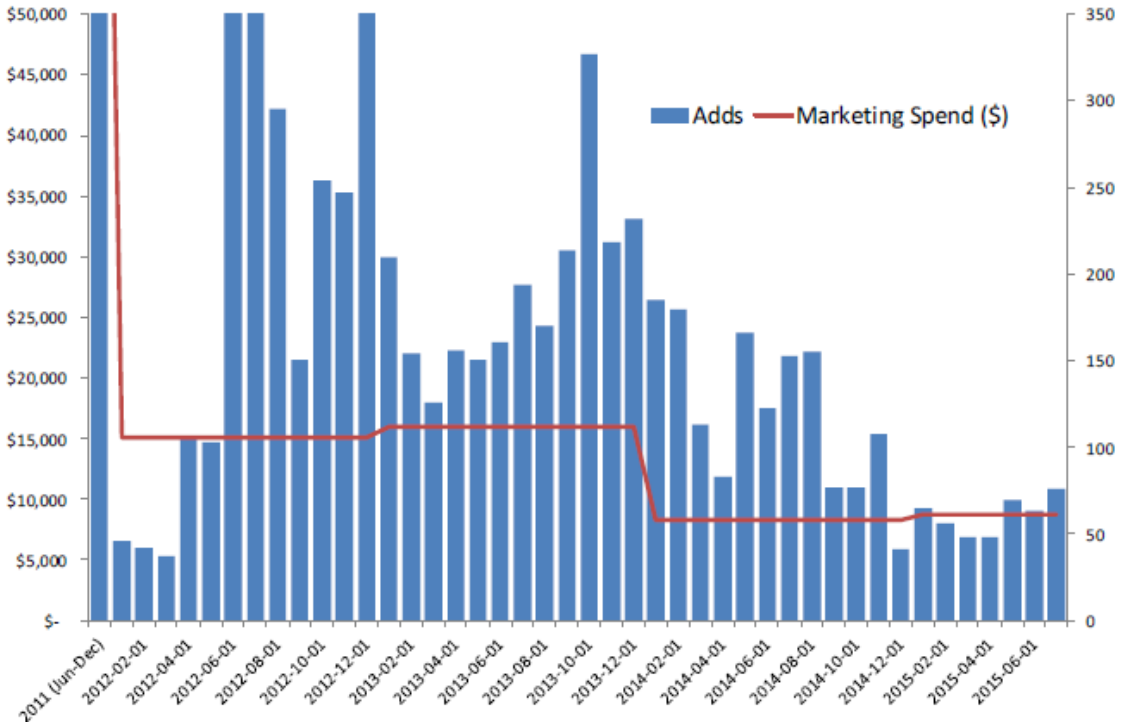
In discussing the issue of the customer awareness and marketing spend, BCSEA states "[it] would have preferred that FEI had responded to the 2014 BERC rate increase with more, not less, marketing."[218] Further, BCSEA states "[it] certainly support[s] FEI's intention to restore the education spending to pre-cutback levels. BCSEA-SCBC agree with FEI that this level of spending is reasonable for the voluntary RNG program."[219]

BCOAPO states that it "does not object to the resumption of spending on customer education and awareness at the previously set level of $300,000 per annum."[220]

[214] Exhibit B-5, BCUC IR 1.43.2.
[215] Ibid, BCUC IR 1.43.3.
[216] Transcript Vol. 2, pp.64–65.
[217] BCSEA Final Argument, p. 8; BCOAPO Final Argument, p. 4; CEC Final Argument, pp.16–17.
[218] BCSEA Final Argument, p. 5.
[219] Ibid., p. 8.
[220] BCOAPO Final Argument, p. 4.

In its final argument, CEC reviews the chart provided by FEI in response to the CEC IR 1.8.2 (see image below), which provides the monthly residential additions as compared to the marketing spend for that customer group, and "submits that the decrease in marketing related to the drop-off in monthly additions is significant evidence to which the Commission should provide significant weight."[221]

Figure 8 – Rate Schedule 1B monthly Adds and Marketing Spend[222]



CEC identified the need for FEI to evaluate the cost-effectiveness of its customer education and awareness spending. CEC argues that, by dividing marketing expenditures by number of customer additions in each year, one arrives at the average costs per acquisition in the ranges of $240 per new residential customer and $4,100 per new commercial customer.[223] CEC further submits that the Commission should make some direction to FEI regarding this and other metrics for reporting on the cost effectiveness of the marketing efforts. [224]

BCSEA submits that CEC's calculation is not an appropriate metric for evaluating the effectiveness of the spending. BCSEA states:

> BCSEA-SCBC agree with FEI that this level of spending is reasonable for the voluntary RNG program. As FEI states in paragraph 50, 'a voluntary program can only function properly if customers are made aware of the program and are provided the information they need to decide to participate.' BCSEA-SCBC agree with FEI in paragraphs 49 and 50 that awareness spending per customer addition to the RNG program is not a valid or appropriate metric.[225]

[221] CEC Final Argument, p. 17.
[222] Exhibit B-8, CEC 1.8.2
[223] Transcript Vol. 12, pp.64–66, 135–137; CEC Final Argument p. 25.
[224] CEC Final Argument, p. 25.
[225] BCSEA Final Argument, p. 8.

FEI reply

FEI also submits that CEC's calculation is not appropriate, stating:

> [CEC's] calculation attributes no value to the cost of generating customer awareness amongst one million customers, educating customers that may be interested (but do not sign up) and retaining customers that do sign up for the program. Instead, the cost per addition metric unfairly attributes all spending to the sole purpose of customer additions in a single year. This misleading metric also fails to appreciate that there is cost of entry into the market that simply cannot be avoided.[226]

Panel discussion

The Panel supports resumption in customer awareness and education spending in the $300 thousand per year range.

There is sufficient evidence on file to suggest that the recent reductions in spending have in some measure contributed to the less than hoped for results in terms of customer acquisition/retention, and that an increase will be helpful in growing program revenues. That said, the evidence is insufficient to provide a basis for arguing that $300 thousand is the optimal total funding level (i.e. as opposed to simply being the amount spent in prior periods).

While we share FEI's view that CEC's cost-per-acquisition metric is not particularly useful as an indicator of cost-effectiveness of the marketing efforts, we support CEC's broader thrust that better evaluation of spending effectiveness is needed. We encourage FEI to establish a set of evaluation metrics that it will track over time, that can be used to better analyze such issues as: whether the total spending envelope is appropriate or should be adjusted (either upwards or downwards); and whether the spending allocations are getting the best results. In the next section of this decision FEI is also directed to provide periodic reporting as part of its annual review filing, and to prepare a more thorough analysis of the data as part of the overall evaluation report that will be expected at a future date.

4.6 Reporting and assessment of new BERC rate methodology

4.6.1 Request to discontinue quarterly reporting

FEI is seeking approval to discontinue the quarterly BERC and BVA report and replace it with a single annual report in conjunction with the Fourth Quarter CCRA and MCRA report.[227] This annual BERC and BVA report is where FEI would seek approval to reset the Short Term Contract BERC Rate effective January 1 each year. The annual resetting of the BERC is a "mechanical exercise" as the BERC is derived from the CCRC and carbon tax that are effective January 1.[228]

Intervener argument

CEC, BCSEA and BCOAPO all support FEI's proposal to replace quarterly BVA reporting with annual reporting.

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[226] FEI Final Argument, p. 16.
[227] Exhibit B-1, p. 3.
[228] FEI Final Argument, p. 15.

Commission determination

The Panel agrees there is no need to continue to report the status of the BVA and the BERC on a quarterly basis.

FEI is directed to file an annual report concurrently with the fourth quarter CCRA and MCRA commodity cost report setting out the Short Term BERC Rate and Long Term BERC Rate that are to be effective on the next January 1st and the calculation of the respective BERC rates.

The Panel directs FEI to continue to file an annual BVA status report by April 30 of each year with a reconciliation of the BVA for the immediately preceding calendar year.

In the FEI rate riders section of the annual review or revenue requirements filings, FEI is directed to include the following information:

- **A continuity schedule showing the breakdown of the forecast December 31st balance in the BVA to be recovered by the BVA Rate Rider by year including sufficient supporting details.**
- **The calculation of the BVA Rate Rider by rate class.**
- **A continuity schedule showing the forecast, actual and variance (actual – forecast) biomethane revenues and volumes sold (GJ) by rate class, type of contract (short term/long term) and year.**
- **Number of customers in each rate class.**

4.6.2 Measures of effectiveness of new BERC rate methodology

FEI states it would consider the new BERC rate methodology effective if FEI achieves two percent customer uptake, the execution of one long term contract and there is no need for an inventory transfer from the BVA to the MCRA.[229]

FEI states it would consider a potential change to the BERC rate under circumstances including, but not limited to, the following:

1. Continued and persistent customer de-enrollment
2. Continued and persistent over-demand (enrollment beyond current supply levels)
3. Significantly lower supply costs
4. Relative price of alternative energy is significantly reduced or increased

Commission determination

In section 4.1.3 of this decision, the Panel expressed its concern that simply lowering the price may not maximize revenues. Notwithstanding this concern, the Panel has approved FEI's proposal for a BERC based on the sum of the CCRA rate, the carbon tax and a premium. However, as directed in the following section of this decision, FEI is required to demonstrate that this approach has increased revenues after FEI has operated under the new BERC rate methodology for a period of time.

[229] Exhibit B-5, BCUC IR 1.42.1.

4.6.3 Nature of regulatory review process to assess effectiveness

Given FEI proposes to file an annual BERC rate setting report and an annual BVA status report, FEI does not believe that a pre-determined date in the future to review the RNG Program is necessary at this time.[230] FEI states that there are many factors that can or may influence the success of the RNG Program and FEI will analyze and apply for changes, if appropriate.[231]

FEI submits that the proposed annual reporting structure will maintain the necessary transparency and oversight over the biomethane program. FEI submits there will also be other proceedings in which the Commission will maintain oversight over the program including FEI's annual review or revenue requirement proceedings, approvals of supply agreements and so on as listed on pages 54 and 55 of the Application.[232]

FEI requests approval of the mechanism for amortizing the December 31 BVA balance, but the amount to be amortized would be embedded in FEI's annual review and subject to Commission review and approval.[233] However, FEI also states that the amortization of the forecast December 31 BVA balance will be treated as a flow-through item, similar to the automatic adjustment mechanisms for the ROE. Like the ROE adjustment mechanism, changes to the amortization of the December 31 BVA balance will be subject to a compliance filing.[234]

The annual review is primarily concerned with the evaluation of the operation of the PBR Plan in and the review of the current year projections and the upcoming year's forecast. The amortization of the December 31 BVA balance would be included in "Plant balances, deferral account balances and other rate base information and depreciation and amortization to be included in rates" portion of the annual review.[235] In addition, the FEI 2014-2018 PBR Decision noted FEI's statement that:

> …the review of the cost of service will not be as detailed as in a revenue requirements application, since controllable costs are largely formula driven, the Annual Review will provide more frequent reporting than would normally exist under Cost of Service regulation.[236]

Commission staff suggested in the SRP that since the forecast automatic transfers were not large in the first few years it might be appropriate to review program performance and whether adjustments should be made before making the transfers automatic. FEI agreed that was an approach they would be open to.[237]

Intervener argument

BCOAPO does not object to FEI's overall proposal for the amortizing the BVA balance directly from the BVA into delivery rates of non-bypass customers. However, BCOAPO also explains that the automatic amortization of the BVA costs in the annual review process could put ratepayers at risk because the amounts to be amortized are currently unknown. Furthermore, BCOAPO notes that FEI seemed amenable to postponing the transfer of costs

[230] Ibid, BCUC IR 1.42.2.
[231] Ibid, BCUC IR 1.42.4.
[232] FEI Final Argument, p. 15.
[233] Transcript Vol. 2, pp. 209–210.
[234] Ibid, p. 202.
[235] FEI 2014–2018 PBR Decision, p. 185.
[236] Ibid, p. 184.
[237] Transcript Vol. 2, pp. 206–307.

and application for approval the aged inventory transfer until 2018. As a result, BCOAPO submits that the delay is a reasonable and provides a small amount protection to non-biomethane customers without harming FEI.[238]

CEC submits:

> The CEC is concerned that transfers of inventory from the BVA account to the MCRA could result in a lost opportunity for cost-recovery through sale to potential future customers. The CEC recommends that the Commission require FEI, when it files an application for transfer of inventory from BVA to MCRA, to provide a fulsome analysis of methods and approaches to preserving the opportunity for cost-recovery benefit to FEI's other customers.[239]

BCSEA agrees with FEI's proposed regulatory review and approval mechanisms.

Commission determination

FEI suggests that the Commission has the opportunity to examine the effectiveness of the new BERC rate methodology through the review of filings such as the annual BERC rate setting filing, the annual BVA status report, the annual revenue requirements application or PBR annual review, and/or a section 71 filing of a biomethane supply contract.

The Panel does not agree that this ensures an appropriate review. A review of this nature would be out of scope in some cases (e.g. review of supply contact application that is within the contracted supply volume and price caps), beyond the capacity of a thorough review (e.g. in the case of the annual BVA status report which is a compliance report) or potentially reviewed as a relatively small item as compared to larger issues in a broader application (e.g. in the case of an annual review or revenue requirement application).

In the Panel's view a more thorough and in-depth review is required to determine if the BERC rate methodology approved in this decision is achieving the stated objectives. Recognizing that there needs to be reasonable period of elapsed time in which to allow the new program to take hold before conducting such a review, the Panel considers an appropriate trigger for review to be by the earlier of an application to transfer inventory to the MCRA or four years from the date of issue of this decision.

FEI is directed to file a comprehensive assessment report for Commission approval at the earlier of the application by FEI for a transfer of biomethane inventory from the BVA to the MCRA or four years after the date of issue of this decision, whichever comes first (Assessment Report). In the event FEI commits all available supply through the Long Term Contract offering prior to the earlier of these two events, FEI is directed to file the Assessment Report at that time. In the Assessment Report FEI is to include, among any other information FEI views necessary to inform the Commission, the following:

1. **An assessment of the degree to which the new BERC rate methodology has achieved the objective of maximizing revenues.**
2. **An evaluation of the supply/demand balance for the RNG program including an update on the biomethane supply contracted to date and projected to be contracted over the near future.**
3. **For January 1st of each year for the period from the date of implementation of the new BERC rate methodology to date:**

[238] BCOAPO Final Argument, p. 4.
[239] CEC Final Argument, p. 28.

3.1. **The BVA balance;**
3.2. **The Short Term BERC Rate;**
3.3. **The Long Term BERC Rate;**
3.4. **The CCRC;**
3.5. **The carbon tax; and**
3.6. **The costs transferred to from the BVA to the BVA balance Transfer rate base deferral account.**

4. **Monthly data for the following for the period from the date of implementation of the new BERC rate methodology to date :**

4.1. **Number of customers by rate class and by offering (i.e. short-term versus long-term);**
4.2. **Churn rate by customer class; and**
4.3. **RNG sales quantities and revenues by rate class and by offering.**

5. **For long-term contracts, provide a summary of the terms and conditions that have been included in executed contracts to date.**

6. **In the case where the Assessment Report is triggered by an application to transfer biomethane quantities from the BVA to the MCRA, a discussion of the steps FEI has taken to realize the value of the environmental attributes by other means than through sales to voluntary customers.**

7. **An analysis of customer awareness and education spending for each year over the period from the date of implementation of the new BERC rate methodology to date including analysis against any metrics that are established by FEI as referred to in section 4.5.**

8. **An evaluation of the effectiveness of the customer awareness and education spend over the period from the date of implementation of the new BERC rate methodology to date.**

9. **Recommendations regarding the need for any changes to the BERC rate methodology.**

5.0 SUMMARY OF DIRECTIVES

This Summary is provided for the convenience of readers. In the event of any difference between the directions in this summary and those in the body of the decision, the wording in the decision shall prevail.

	Directive	**Page**
1.	Given that we consider a revision to the current methodology warranted, in the absence of any evidence suggesting an alternative BERC premium, and noting the support of BCSEA and BCOAPO, the Panel approves a premium of $7 per GJ above the Conventional Gas Cost as the Short Term BERC Rate.	23
2.	Further, the Panel approves the Long Term BERC Rate to be set at a $1 per GJ discount to the Short Term BERC Rate, subject to the further determinations in section 4.1 of this decision.	23
3.	In order for a contract to be eligible for the Long Term BERC Rate, the contract must be for a commitment to purchase no less than 60,000 GJ in aggregate over the term of the contract and must be for a term of no less than five years and no more than ten years.	29
4.	For the reasons set out below, the Panel determines that long term contracts shall be subject to a Minimum Contract Strike Price of $10/GJ.	30
5.	The Panel directs that long term contracts must include a Contract Floor Price provision that results in the price of RNG in any period beyond year five of a contract that is not less than the then prevailing Conventional Gas Cost.	32
6.	The Panel directs FEI to make the Long Term Contract offering available to all customers willing to commit to the required minimum take term and quantities. In the event FEI determines there are barriers that prevent FEI from providing access for customers other than transportation service customers, FEI is directed to file a report with the Commission describing the nature of the barriers and a discussion of the proposed method(s) for overcoming these barriers.	33
7.	FEI is directed to file blackline changes to section 28 of the FEI GT&C and Rate Schedules 1B, 2B, 3B 5B and 11B reflecting the BERC rate methodology approved in this decision. These tariff pages are to be filed within 30 days of the date of this decision.	34
8.	The Panel directs FEI to address the potential loss of the value of environmental attributes in any application to transfer inventory from the BVA to the MCRA, including a discussion of the steps FEI has taken to realize the value of the environmental attributes by other means than through sales to voluntary customers.	38
9.	FEI is required to file a formal application with the Commission before unsold biomethane can be transferred from the BVA to the MCRA. The application must not be included as part of a quarterly gas cost review process.	39

	Directive	Page
10.	The application must to be copied to the interveners in this proceeding and the Commission will consider whether a public hearing is required once the application has been filed.	39
11.	The Panel approves FEI's request to amortize, over a one year period, the forecast December 31 balance in the BVA, net of unsold inventory and remaining supply costs, through the delivery rates of all non-bypass customers effective January 1 of the subsequent year.	44
12.	In order to provide the transparency directed in the 2013 Decision the Panel directs that the recovery of the BVA balance be through a rate rider from FEI's non-bypass customers, effective January 1st of the subsequent year (BVA Rate Rider). Furthermore, the continuation of the FEI BVA Balance Transfer mechanism will be reviewed in the earlier of four years or an application for an inventory transfer from the BVA to the MCRA, or FEI's approach to ratemaking (i.e. PBR to cost of service).	45
13.	FEI is directed to file an annual report concurrently with the fourth quarter CCRA and MCRA commodity cost report setting out the Short Term BERC Rate and Long Term BERC Rate that are to be effective on the next January 1st and the calculation of the respective BERC rates.	49
14.	The Panel directs FEI to continue to file an annual BVA status report by April 30 of each year with a reconciliation of the BVA for the immediately preceding calendar year.	49
15.	In the FEI rate riders section of the annual review or revenue requirements filings, FEI is directed to include the following information: • A continuity schedule showing the breakdown of the forecast December 31st balance in the BVA to be recovered by the BVA Rate Rider by year including sufficient supporting details. • The calculation of the BVA Rate Rider by rate class. • A continuity schedule showing the forecast, actual and variance (actual – forecast) biomethane revenues and volumes sold (GJ) by rate class, type of contract (short term/long term) and year. • Number of customers in each rate class.	49
16.	FEI is directed to file a comprehensive assessment report for Commission approval at the earlier of the application by FEI for a transfer of biomethane inventory from the BVA to the MCRA or four years after the date of issue of this decision, whichever comes first (Assessment Report). In the event FEI commits all available supply through the Long Term Contract offering prior to the earlier of these two events, FEI is directed to file the Assessment Report at that time. In the Assessment Report FEI is to include, among any other information FEI views necessary to inform the Commission, the following: 1. An assessment of the degree to which the new BERC rate methodology has achieved the objective of maximizing revenues. 2. An evaluation of the supply/demand balance for the RNG program including an update on the biomethane supply contracted to date and projected to be contracted over the near future.	51

	Directive	Page
	3. For January 1st of each year for the period from the date of implementation of the new BERC rate methodology to date: 3.1. The BVA balance; 3.2. The Short Term BERC Rate; 3.3. The Long Term BERC Rate; 3.4. The CCRC; 3.5. The carbon tax; and 3.6. The costs transferred to from the BVA to the BVA balance Transfer rate base deferral account. 4. Monthly data for the following for the period from the date of implementation of the new BERC rate methodology to date : 4.1. Number of customers by rate class and by offering (i.e. short-term versus long-term); 4.2. Churn rate by customer class; and 4.3. RNG sales quantities and revenues by rate class and by offering. 5. For long-term contracts, provide a summary of the terms and conditions that have been included in executed contracts to date. 6. In the case where the Assessment Report is triggered by an application to transfer biomethane quantities from the BVA to the MCRA, a discussion of the steps FEI has taken to realize the value of the environmental attributes by other means than through sales to voluntary customers. 7. An analysis of customer awareness and education spending for each year over the period from the date of implementation of the new BERC rate methodology to date including analysis against any metrics that are established by FEI as referred to in section 4.5. 8. An evaluation of the effectiveness of the customer awareness and education spend over the period from the date of implementation of the new BERC rate methodology to date. 9. Recommendations regarding the need for any changes to the BERC rate methodology.	51

DATED at the City of Vancouver, in the Province of British Columbia, this 12th day of August 2016.

Original signed by:

D. M. MORTON
PANEL CHAIR / COMMISSIONER

Original signed by:

H. G. HAROWITZ
COMMISSIONER

Original signed by:

K. A. KEILTY
COMMISSIONER

British Columbia Utilities Commission

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ORDER NUMBER
G-133-16

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Energy Inc.
Application for Approval of
Biomethane Energy Recovery Charge Rate Methodology

BEFORE:
D. M. Morton, Commissioner/Panel Chair
H. G. Harowitz, Commissioner
K. A. Keilty, Commissioner

on August 12, 2016

ORDER

WHEREAS:

A. On August 28, 2015, FortisBC Energy Inc. (FEI) filed an application for Approval of Biomethane Energy Recovery Charge (BERC) Rate Methodology (Application), pursuant to sections 59–61 of the *Utilities Commission Act*. In the Application FEI is seeking approval of a non-cost-based BERC rate methodology, mechanisms for transferring costs and unsold biomethane volumes out of the Biomethane Variance Account (BVA) for recovery from FEI's non-bypass ratepayers and revised reporting requirements;

B. By Order G-210-13 and its Decision dated December 11, 2013 (2013 Decision), the British Columbia Utilities Commission (Commission) approved the continuance of the FEI Biomethane Program on a permanent basis with certain modifications as directed in the 2013 Decision. The 2013 Decision dated December 11, 2013, set out a cost-based rate methodology for determining the BERC that recovers all biomethane program costs;

C. In the Application, FEI requests the following approvals:

   i. Approval of a Short Term Contract BERC rate at the Commission approved January 1st Commodity Cost Recovery Charge (CCRA rate) per GJ, plus the current Carbon Tax applicable to natural gas customers, plus a premium of $7.00 per GJ; and, applicable to all affected biomethane rate schedules within the Mainland, Vancouver Island and Whistler Service Areas, to be effective the later of the start of the first quarter after the Commission's decision or January 1, 2016 as discussed in Section 7 of the Application;

ii. Approval that the Long Term Contract BERC rate be set at a $1.00 per GJ discount to the Short Term Contract rate;

iii. Approval to discontinue the quarterly BERC and BVA report and replace with a single report in conjunction with the Fourth Quarter CCRA and Midstream Commodity Reconciliation Account (MCRA) report;

iv. FEI may apply to transfer unsold biomethane supply that is greater than 18 months in age and/or 250,000 GJs in the BVA to the MCRA at the prevailing CCRA rate on January 1 each year; and,

v. Approval to amortize the forecast December 31 balance in the BVA, net of the transfer of unsold inventory and remaining supply costs, through the delivery rates of all non-bypass customers effective January 1 of the subsequent year;

D. By Order G-147-15 dated September 15, 2015 the Commission established the initial regulatory timetable directing FEI to file supplementary information and providing for one round of written information requests, followed by a procedural conference on November 16, 2015 to determine the remaining regulatory process;

E. The following parties registered as interveners in the proceeding:

1. British Columbia Old Age Pensioners' Organization *et al* (BCOAPO);
2. BC Sustainable Energy Association and the Sierra Club BC, (jointly BCSEA); and
3. Commercial Energy Consumers Association of British Columbia (CEC);

F. On November 16, 2015 at the procedural conference the Commission clarified the scope of the proceeding and determined that additional regulatory process was required. The additional regulatory process consisted of a second round of written information requests and a streamlined review process (SRP);

G. The Commission issued Order G-181-15 dated November 19, 2015 establishing a regulatory timetable setting out the remaining regulatory process, including an SRP on February 4, 2016;

H. By February 23, 2016, the Commission received final argument from FEI and registered interveners on the Application;

I. On April 22, 2016, the Commission issued a letter to FEI and registered interveners indicating the Panel is considering whether it would be appropriate to establish floor prices and ceiling prices for each of the two proposed BERC rate offerings. The letter asks parties if they wish to file evidence on this matter. FEI and each of the interveners indicated they did not intend to file further evidence;

J. On May 4, 2016 the Commission issued Order G-60-16 setting out a timetable for filing of supplemental argument in regard to floor and/or ceiling prices;

K. By May 18, 2016, the Commission received final supplemental argument from FEI and registered interveners on the Application; and

L. The Commission reviewed the Application, the evidence and the submissions of the parties and finds that a change in the BERC rate methodology is warranted.

NOW THEREFORE pursuant to section 59 to 61 of the *Utilities Commission Act* and for the reasons contained in the Decision issued concurrently with this order, the British Columbia Utilities Commission as follows:

1. Approves a premium of $7 per GJ above the Conventional Gas Cost (defined as the sum of the Commodity Cost Recovery Charge, the carbon tax and any other taxes applicable to conventional natural gas sales) as the Short Term BERC Rate.

2. Approves the Long Term BERC Rate to be set at a $1 per GJ discount to the Short Term BERC Rate subject to the following:

    a. In order for a contract to be eligible for the Long Term BERC Rate, the contract must be for a commitment to purchase no less than 60,000 GJ in aggregate over the term of the contract and must be for a term of no less than five years and no more than ten years;

    b. Long term contracts shall be subject to a Minimum Contract Strike Price of $10 per GJ; and

    c. Long term contracts must include a Contract Floor Price provision that results in the price of Renewable Natural Gas in any period beyond year five of a contract that is not less than the prevailing Conventional Gas Cost;

3. Directs FortisBC Energy Inc. (FEI) to file blackline changes to section 28 of the FEI General Terms and Conditions and Rate Schedules 1B, 2B, 3B, 5B and 11B reflecting the BERC rate methodology approved in the Decision within 30 days of the date of the Decision.

4. Directs FEI to file a comprehensive assessment report for Commission approval at the earlier of the application by FEI for a transfer of biomethane inventory from the Biomethane Variance Account to the Midstream Commodity Reconciliation Account or four years after the date of issue of this decision, whichever comes first (Assessment Report). In the event FEI commits all available supply through the Long Term Contract offering prior to the earlier of these two events, FEI is directed to file the Assessment Report at that time.

5. FEI is to comply with all directives and determinations set out in the Decision accompanying this order.

DATED at the City of Vancouver, in the Province of British Columbia, this 12th day of August 2016.

BY ORDER

Original signed by:

D. M. Morton
Commissioner

LIST OF ACRONYMS

2010 Decision	Terasan Gas Inc. Application for Approval of a Biomethane Service Offering and Supporting Business Model, for the Approval of the Salmon Arm Biomethane Project and for the Approval the Catalyst Biomethane Project Decision dated December 14, 2010 and Order G-194-10
2013 Decision	FEI Biomethane Service Offering: Post Implementation Report and Application for Approval of the Modification of the Biomethane Program on a Permanent Basis Decision dated December 11, 2013 and Order G-210-13
Application	August 28, 2015 filing for approval of Biomethane Energy Recovery Charge rate methodology
Assessment Report	a comprehensive assessment report for Commission approval filed at the earlier of the application by FEI for a transfer of biomethane inventory from the BVA to the MCRA or four years after the date of issue of this decision
BCOAPO	British Columbia Old Age Pensioners' Organization et al.
BCSEA	BC Sustainable Energy Association and the Sierra Club BC
BCUC, Commission	British Columbia Utilities Commission
BERC	Biomethane Energy Recovery Charge
BVA	Biomethane Variance Account
BVA Balance Transfer	Amortization of the forecast December 31 balance in the BVA, including the unsold biomethane premium, net of the transfer of unsold inventory and remaining supply costs, through the delivery rates of all non-bypass customers, effective January 1 of the subsequent year
BVA Rate Rider	Rate rider for the recovery of the BVA Balance Transfer from FEI's non-bypass customers
CCRA	Commodity Cost Reconciliation Account
CCRA rate, Commodity rate, CCRC	Commodity Cost Recovery Charge
CEA	*Clean Energy Act*
CEC	Commercial Energy Consumers Association of British Columbia
Contract Floor Price	A minimum price during the term of an existing Long Term Contract
Conventional Gas Cost	Sum of the Commodity Cost Recovery Charge, the carbon tax and any other taxes applicable to conventional natural gas sales
FEI	FortisBC Energy Inc.

FEVI	FortisBC Energy (Vancouver Island) Inc.
GJ	gigajoule
GT&C	General Terms and Conditions
IR	Information request
Long Term BERC Rate	BERC rate that is a discount of $1 off the Short Term BERC Rate
MCRA	Midstream Cost Reconciliation Account
MCRA Impact	Impact of the aged inventory transfers to the MCRA on the core sales customers
Minimum Contract Strike Price	The minimum price at which any new long-term contract must be set at which is the maximum of the indicated Long Term BERC Rate at the time of signing and $10 per GJ.
New BERC Rate Variance	The difference between the cost based rate and the applicable proposed Short Term BERC Rate and Long Term BERC Rate multiplied by the RNG sales volumes accumulating in the BVA
PJ	Petajoules
Q4	Fourth Quarter
RNG	Renewable natural gas
Short Term BERC Rate	BERC rate that is the sum of a premium of $7 per GJ and the Conventional Gas Cost
SRP	Streamlined review process
UBC	University of British Columbia
UBPDA	Unsold Biomethane Premium deferral account
UCA	*Utilities Commission Act*
Unsold Biomethane Premium	The difference between the average cost of the biomethane supply and the CCRA rate multiplied by the volume of inventory transferred

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

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

EXHIBIT LIST

Exhibit No.	Description
COMMISSION DOCUMENTS	
A-1	Letter dated September 8, 2015 – Appointing Panel for the review of the FEI Application for Approval of Biomethane Energy Recovery Charge Rate Methodology
A-2	Letter dated September 18, 2015 – Commission Order G-147-15 establishing the regulatory timetable and requesting supplemental information
A-3	Letter dated October 13, 2015 – Commission Information Request No. 1 to FEI
A-4	Letter dated November 5, 2015 – Granting Extension Request to FEI
A-5	Letter dated November 10, 2015 – Procedural Conference Information
A-6	Letter dated November 19, 2015 – Commission Order G-181-15 establishing the remainder of the regulatory timetable
A-7	Letter dated January 14, 2016 – Commission Information Request No. 2 to FEI – Technical Questions for SRP
A-8	Letter dated January 15, 2016 – BCUC Rules of Practice and Procedure to parties
A-9	Letter dated April 22, 2016 – Panel request comments regarding submissions on nature of price floors and ceilings
A-10	Letter dated May 4, 2016 – Commission Order G-60-16 establishing the remainder of the regulatory timetable
COMMISSION STAFF DOCUMENTS	
A2-1	Submitted at SRP February 3, 2016 – CITY OF SURREY IR 11.4
A2-2	Submitted at SRP February 3, 2016 – Page 69 of the 2013 Decision

APPLICANT DOCUMENTS

B-1	**FORTISBC ENERGY INC. (FEI)** Letter dated August 28, 2015 – Application for Approval of Biomethane Energy Recovery Charge (BERC) Rate Methodology
B-1-1	Letter dated October 1, 2015 – FEI Submitting Evidentiary Update
B-1-2	Letter dated October 6, 2015 – FEI Submitting Errata to the Application
B-2	Letter dated September 18, 2015 – FEI Submitting Application Notice
B-3	Letter dated October 1, 2015 – FEI Supplementary Information Filing
B-4	Letter dated November 3, 2015 – FEI Submitting Request for Filing Extension
B-5	Letter dated November 6, 2015 – FEI Submitting Response to BCUC IR No.1
B-6	Letter dated November 6, 2015 – FEI Submitting Response to BCOAPO IR No.1
B-7	Letter dated November 6, 2015 – FEI Submitting Response to BCSEA IR No.1
B-8	Letter dated November 6, 2015 – FEI Submitting Response to CEC IR No.1
B-9	Letter dated February 2, 2016 – FEI Submitting Response to BCUC IR No.2
B-10	Submitted at SRP February 3, 2016 – FEI SRP Presentation
B-11	Submitted at SRP February 3, 2016 – FEI Biomethane Program Marketing Material Samples
B-12	Submitted at SRP February 3, 2016 – Rate 1B Customer Quarterly Churn Rate
B-13	Letter dated April 27, 2016 – FEI Submitting response regarding nature of price floors and ceilings

INTERVENER DOCUMENTS

C1-1	**BC SUSTAINABLE ENERGY ASSOCIATION AND THE SIERRA CLUB BC (BCSEA)** Letter dated September 22, 2015 – Request for Intervener Status by William Andrews and Thomas Hackney
C1-2	Letter dated October 21, 2015 – BCSEA Submitting IR No. 1 to FEI
C1-3	Letter dated April 22, 2016 – BCSEA Submitting comments regarding submissions on nature of price floors and ceilings
C2-1	**COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA (CEC)** Letter dated September 23, 2015 – Request for Intervener Status by Christopher Weafer
C2-2	Letter dated October 21, 2015 – CEC Submitting IR No. 1 to FEI
C2-3	Letter dated November 4, 2015 – CEC Submitting Comments on FEI Extension Request
C2-4	Letter dated April 28, 2016 – CEC Submitting comments regarding submissions on nature of price floors and ceilings

C3-1	**BRITISH COLUMBIA OLD AGE PENSIONERS' ORGANIZATION, ACTIVE SUPPORT AGAINST POVERTY, DISABILITY ALLIANCE BC, COUNCIL OF SENIOR CITIZENS' ORGANIZATIONS OF BC, AND THE TENANT RESOURCE AND ADVISORY CENTRE (BCOAPO)** Letter dated October 13, 2015 – Request for Intervener Status by Tannis Braithwaite and James Wightman
C3-2	Letter dated October 21, 2015 – BCOAPO Submitting IR No. 1 to FEI
C3-3	Letter dated November 4, 2015 – BCOAPO Submitting Comments on FEI Extension Request
C3-4	Letter dated January 14, 2016 – BCOAPO Submitting Comments regarding written technical questions
C3-5	Letter dated April 27, 2016 – BCOAPO Submitting comments regarding submissions on nature of price floors and ceilings