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August 12, 2020

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Ms. Marija Tresoglavic, Acting Commission Secretary

Dear Ms. Tresoglavic:

Re: FortisBC Energy Inc. (FEI)

Biomethane Energy Recovery Charge (BERC) Rate Methodology

British Columbia Utilities Commission (BCUC) Decision and Order G-133-16 Compliance Filing – BERC Rate Assessment Report

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On August 12, 2016, the BCUC issued its Decision and Order G-133-16 on FEI's 2015 BERC Rate Methodology Application approving. Directive 16 of the Decision directed FEI as follows:

> 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.

FEI respectfully submits the attached BERC Rate Assessment Report in accordance with the Decision.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

FORTIS BC™

FORTISBC ENERGY INC.

Biomethane Energy Recovery Charge Rate Methodology

Comprehensive Assessment Report

In Compliance with British Columbia Utilities Commission Order G-133-16

August 12, 2020

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List of Appendices

1. SUMMARY OF REPORTING REQUIREMENTS

On August 12, 2016, the British Columbia Utilities Commission (BCUC) issued its Decision and Order G-133-16 (Decision) on FortisBC Energy Inc.'s (FEI or the Company) 2015 Biomethane[1] Energy Recovery Charge (BERC) Rate Methodology Application (Application). In the Decision, the Panel approved, among other things, changes to the BERC rate methodology, a Short Term BERC Rate and a Long Term BERC Rate. The Decision also directed FEI to file a comprehensive assessment report (Assessment Report) for BCUC approval at the earlier of: an application by FEI for a transfer of biomethane inventory from the Biomethane Variance Account (BVA) to the Midstream Cost Reconciliation Account (MCRA), or four years after the date of the Decision, whichever comes first[2]. Since FEI has not had a transfer of biomethane inventory from the BVA to the MCRA since the Decision was issued, this Assessment Report is being filed four years from the date of the Decision as directed.

Table 1 below provides a summary of the reporting requirements of Order G-133-16 and where in this Assessment Report the information is presented.

Table 1: Decision Compliance Reporting Requirements

Compliance Reporting Requirement – Directive 16, p. 51	Report Section #
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.	Section 2
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.	Section 3
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.	Section 4

[1] Biomethane is also referred to as Renewable Natural Gas (RNG) and the current RNG Program was referred to as the Biomethane Program. Biomethane and RNG are used interchangeably throughout the Application.

[2] Decision, p 51.

Compliance Reporting Requirement – Directive 16, p. 51	Report Section #
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.	Section 5
5. For long-term contracts, provide a summary of the terms and conditions that have been included in executed contracts to date.	Section 6
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.	N/A
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.	Section 7
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.	Section 7
9. Recommendations regarding the need for any changes to the BERC rate methodology.	Section 8

2. BERC RATE METHODOLOGY

In 2015, FEI observed a negative trend in customer enrolment for the RNG Program. The negative trend in enrolments was believed to be due to the premium customers were required to pay for RNG as compared to conventional natural gas. FEI's success in enrolling customers up to that point in the RNG Program showed that customers would voluntarily pay a premium for RNG to reduce their greenhouse gas (GHG) emissions. However, in 2015, the BERC Rate, and the associated premium as compared to conventional natural gas, had reached a point that discouraged customers from voluntarily enrolling in the RNG Program.

This trend could have resulted in a negative impact to non-RNG customers as greater unsold biomethane and, therefore, greater unrecovered costs, would have to be transferred to the MCRA account. To avoid this potential outcome, FEI proposed that the BERC Rate be set to a level that would encourage more participation in the RNG Program, stimulate increased demand for RNG, increase overall revenues from the RNG Program, and reduce the impact to natural gas delivery and commodity rates.

The BERC Rate is the rate FEI charges for biomethane purchased on a voluntary basis by customers enrolled in the RNG Program. In the 2015 Application, FEI proposed a floating BERC Rate based upon a fixed premium on conventional natural gas, and a lower priced option for customers willing to enter into long-term agreements with FEI that met certain volume and

term commitments. The Decision approved the two options proposed by FEI: the Short Term BERC Rate and the Long Term BERC Rate. The Short Term BERC Rate is equal to the BCUC approved January 1st Commodity Cost Recovery Charge (CCRA Rate) each year, plus the approved Carbon Tax rate, plus a premium of $7.00 per gigajoule (GJ). The Long Term BERC Rate is set at a $1.00 discount to the Short-Term BERC Rate to reflect the benefits to FEI and its non-RNG customers, including long-term revenue certainty, a more predictable load throughout the year, and reduced marketing efforts required to reach this customer group.

FEI stated that the BERC rate methodology proposed in the 2015 Application (and ultimately approved in the Decision) would reduce the risk to non-RNG customers of the cost of unsold biomethane volumes. The concept was to sell most or all of the available RNG supply at a lower price instead of selling less volume at a higher price. This higher volume at a lower price approach was proposed to help avoid the transfer of a greater amount of unsold RNG to the MCRA and thus the potential for transferring all the costs associated with any such unsold RNG volumes to non-RNG customers.

In the Decision, the BCUC Panel identified three overarching objectives which guided its decision approving the BERC rate methodology, as follows:

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.[3]

In the Decision, FEI was directed to file a comprehensive report to assess the degree to which the revised BERC rate methodology has achieved the objective to maximize RNG program revenue. FEI provides the following evaluation of the Short Term BERC Rate and Long Term BERC Rate, which demonstrates that the revised BERC rate methodology has resulted in increased program participation, increased RNG sales volumes and increased program revenues received from RNG customers. Given these increases, FEI's assessment is that the revised BERC rate has been successful and has resulted in greater revenues that would have been the case under the previous BERC rate methodology.

2.1 *ASSESSMENT OF THE REVISED BERC RATE METHODOLOGY*

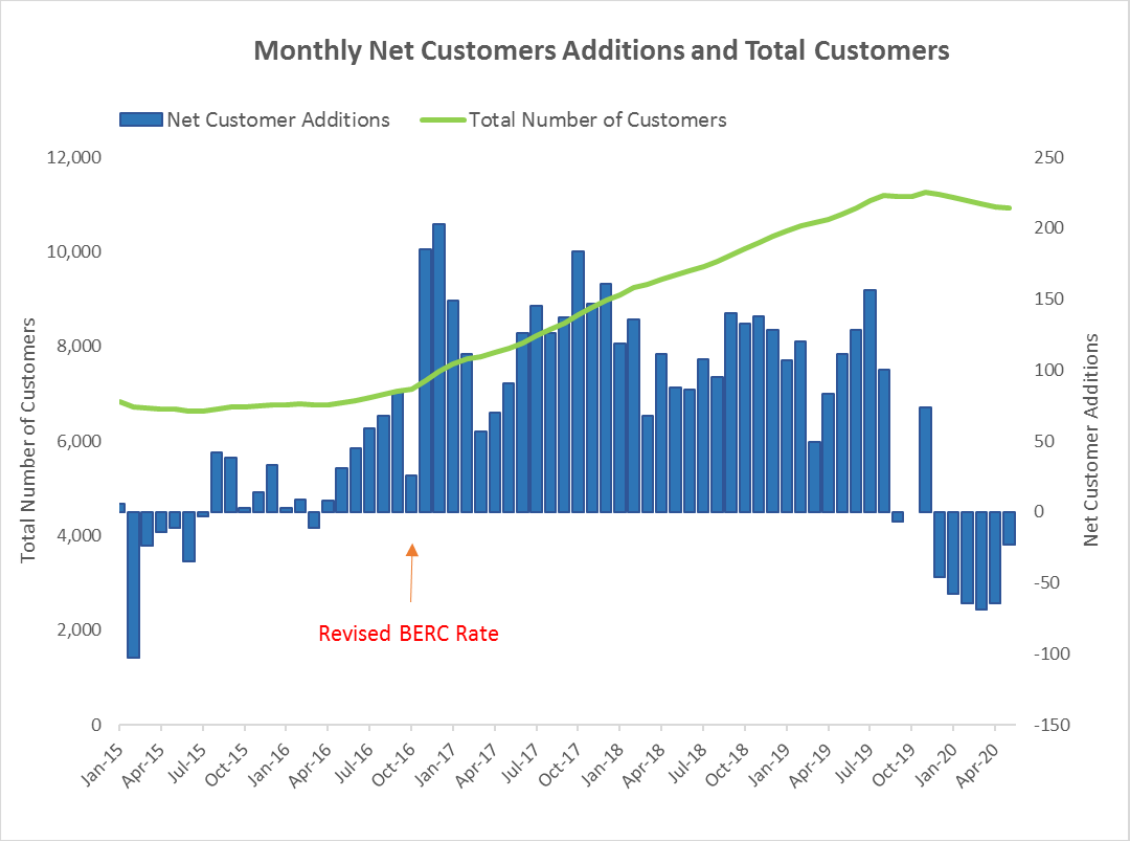
2.1.1 Customer Participation

The revised BERC rate methodology has been successful in driving a steady increase in voluntary customer participation since its implementation. In 2015, prior to the implementation of the revised BERC rate, customer enrolment rates for the RNG Program were declining and in 2016 they were relatively flat.

Following the Decision, FEI implemented the updated Short Term BERC Rate on October 1, 2016 at $10.209 per GJ. Since the implementation of the Short Term BERC rate, FEI has seen an increase in the rate of customer additions to the RNG Program and a steady increase in overall customer enrolment, as seen in Figure 1 below for the period of October 2016 to the end of 2019. Through this period, the total number of participants increased by 58 percent from approximately 7,100 at the start of the revised BERC Rate to 11,200 by the end of 2019 (demonstrated by the solid green line in Figure 1). The vast majority of this growth in customer enrolments was attributable to residential customers enrolling in Rate Schedule 1B.

[3] Decision, p. 17.

Figure 1: Monthly Net Customers Addition and Cumulative Total Customers



The reduction in customer additions towards the end of 2019, as shown in Figure 1 above, was due to a temporary closure of the Biomethane Program to new participants as RNG supply was oversubscribed. This situation was due to a number of factors, including increased enrolment of residential and small commercial customers, increased enrolment and volume from large long-term contract customers, and variability in the expected timing and volume of RNG delivered from new supply projects during this time.[4] The temporary closure of the RNG Program led to the steady erosion of the total number of customers enrolled, due to the ordinary level of customers exiting the program not being replaced by new participants. FEI expects that new RNG supply projects will begin delivering significant additional volumes of RNG beginning in late 2021, at which time FEI will again be actively engaged in enrolling new customers.

The market's acceptance of the revised BERC rate methodology is also demonstrated in Figure 2 below.

[4] An example is the approved City of Surrey Biofuel Facility, which was delayed in-service by over a year, and took longer than anticipated to deliver expected volumes of RNG.

Figure 2: Monthly Net Customers Addition and Short Term BERC Rate

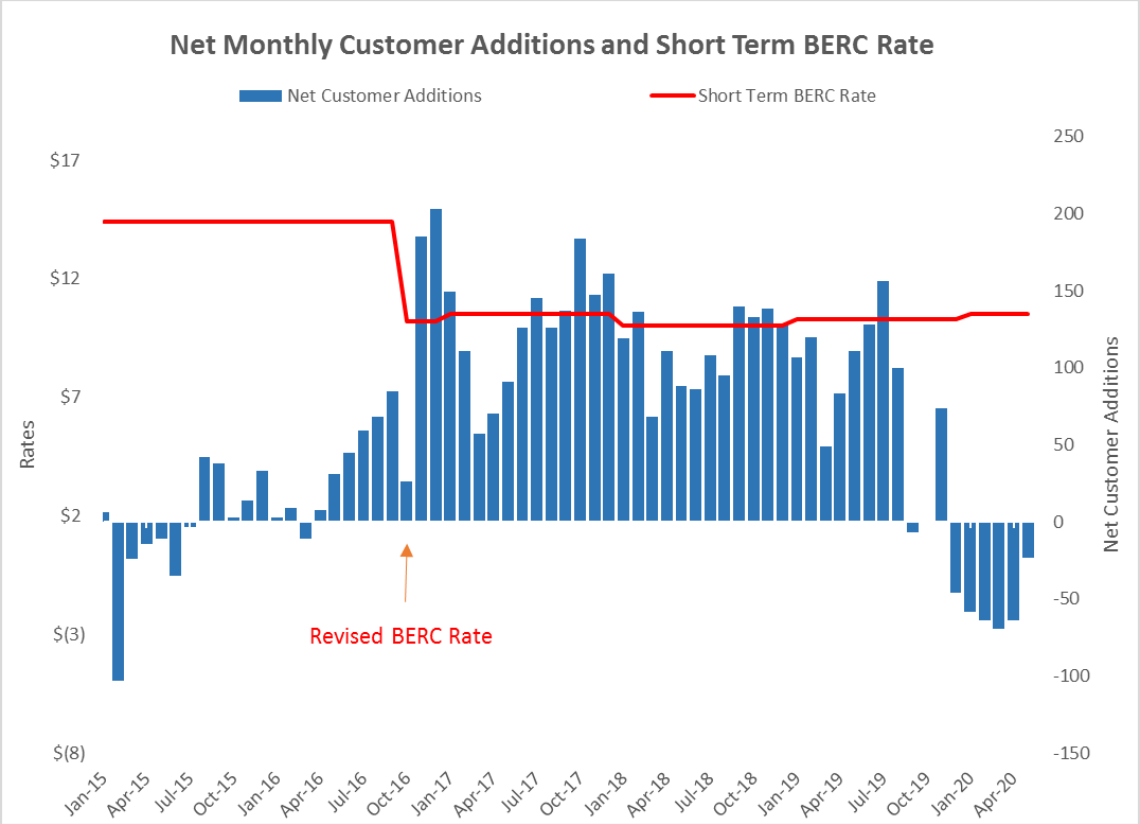


Figure 2 shows that customers reacted positively to the revised BERC rate methodology, by the increased customer additions to the program since the price paid by customers for RNG was reduced. Moreover, the increased rate of customer additions has been maintained since the revised BERC rate was introduced.

The Long Term BERC Rate has also been successful in generating participation in the RNG Program. Following the Decision, FEI implemented the Long Term BERC Rate on October 1, 2016, at the approved $1 discount from the $10.209 per GJ Short Term BERC Rate in place at that time, with a minimum floor price of $10 per GJ. Since the implementation of the revised BERC rate methodology, the Long Term BERC Rate has remained at the $10 per GJ floor price. While the Long Term BERC Rate of $10 per GJ has not to date offered customers a significant price discount to the Short Term BERC Rate, the long term contracts have been well received. More sophisticated, larger volume customers have shown a preference for securing access to RNG with a 5 or 10 year contract than the standard Rate 11B sales agreement of up to 1 year in length. FEI understands that the long term contracts make it easier for these customers to choose RNG to meet their GHG emission reduction objectives since the contract provides them with RNG supply security. To date, FEI has executed three long term contracts, and has been approached by additional customers interested in signing long term contracts. FEI's ability to enrol additional customers in long term contracts has been hindered by the delay in acquiring additional RNG supply volumes.

The demand for long term access to large volumes of RNG is also driven by factors that are specific to particular industries or customers. These drivers include GHG emissions reduction targets, the price of long term RNG compared to alternatives, and environmental initiatives from different levels of government. For example, among municipalities, the demand for RNG appears to be driven the municipality's climate action policy and GHG reduction targets. Achieving these policies and targets may be most cost effective, both in terms of capital investment and on-going operating costs, by using RNG for their municipal-owned buildings that have gas equipment. A significant driver of RNG demand in the education sector, including UBC, is the provincial government's GHG emissions reduction targets, while RNG demand in the transportation sector appears to be driven by BC's Low Carbon Fuel Standard (BCLCFS).

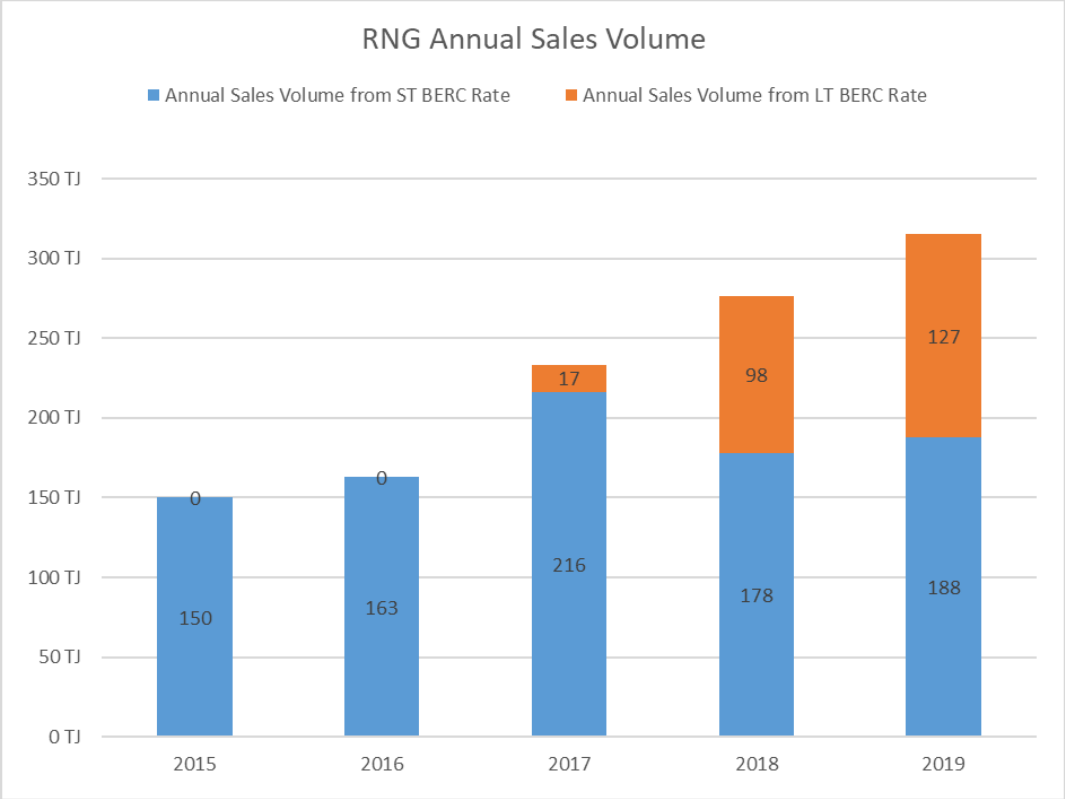
These additional drivers have primarily affected large volume RNG customers and have not impacted the mass market residential and small commercial customers. FEI continues to monitor these drivers of demand for large volumes of RNG and may propose RNG Program modifications in the future if required to ensure the long term balance of supply and demand.

2.1.2 Sales Volume

As can be seen in Figure 3 below, there has been an increase in the volume of RNG sold since the revision to the BERC Rate. The blue bars in Figure 3 demonstrate that the annual RNG sales volume from Short Term BERC Rate customers has grown substantially since 2015, the last full year of operation under the previous BERC rate methodology. From the end of 2016, when the revised BERC rate methodology was implemented, to the end of 2019, the sales volume for Short Term BERC Rate customers[5] increased from approximately 163 Terajoules (TJs), to approximately 188 TJs, which is a growth of 15 percent over the three-year period, or an average annual growth rate of nearly 5 percent.

[5] Short Term BERC Rate customers include customers enrolled in Rate 1B, Rate 2B, Rate 3B Rate 5B, and Rate 11B.

Figure 3: RNG Annual Sales Volume



The increase short-term sales volumes in 2017, and the subsequent decrease in 2018, as shown in the blue bars in the figure above, is due to the migration of UBC and City of Vancouver from the Short Term BERC Rate to the Long Term BERC Rate in 2017 and 2018. The short term volumes sold in 2017 increased compared to 2016 when the City of Vancouver began consuming a significant volume of RNG. The Short Term BERC Rate sales volume then declined in 2018, as both UBC and the City of Vancouver executed long term contracts and migrated to the Long Term BERC Rate. The impact of this migration also increased the long-term sales volumes from 2017 to 2018, as shown in the orange bars in the figure above. The long term sales volume increased again in 2019 due to Translink starting service on February 1, 2019.

The average volume of RNG sold per residential customer over the period has seen a modest increase since the revised Short Term BERC Rate was introduced. At the end of 2016, RNG sales volumes were approximately 60,500 GJs for approximately 6,968 residential customers[6], for an average volume per customer of approximately 8.7 GJs. By the end of 2017, the average volume per customer had increased to approximately 10.9 GJs and has remained above 10 GJ per customer since. This average volume of 10 GJs per year represents approximately 11 percent of the annual demand of an average FEI residential customer, indicating that a blend of

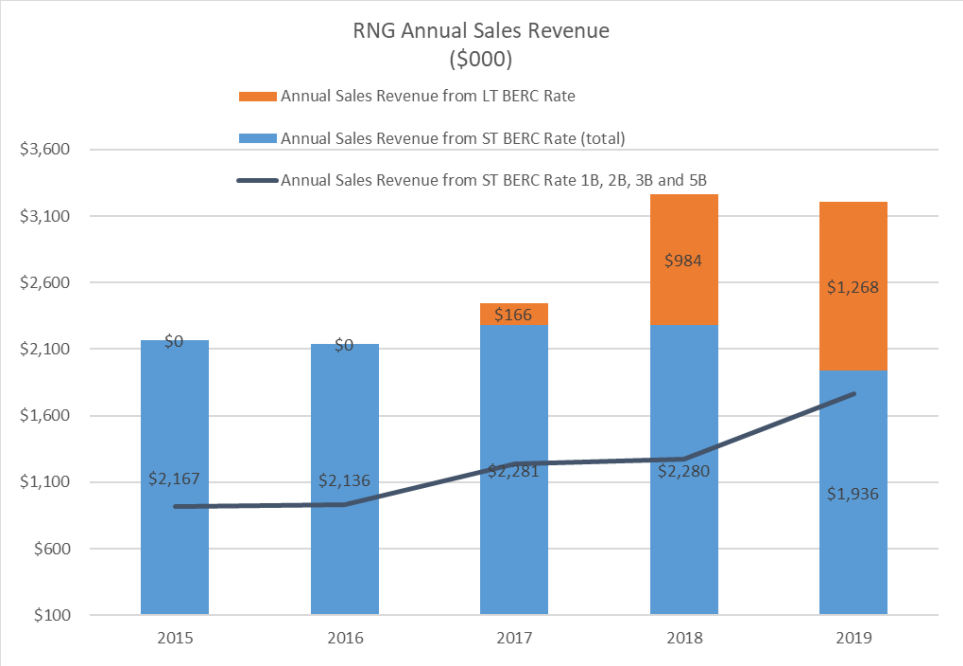
[6] The number of residential customers is taken as the simple average of the number enrolled in January and December of the year.

approximately 10 percent remains a good indicator of the market's desired proportion of RNG to natural gas.

2.1.3 Total Revenues

Figure 4 below shows the annual revenue from both Short Term BERC Rate and Long Term BERC Rate customers which demonstrates that total revenues have increased since implementation of the revised BERC rate methodology.

Figure 4: Annual RNG Revenue by Short Term and Long Term Customers



The annual RNG revenue from Short Term BERC Rate customers increases and then decreases over the period, as shown by the blue bars in Figure 4. This was due to the migration of UBC and the City of Vancouver from the Short Term BERC Rate under RS 11B to the Long Term BERC Rate as discussed above.

As shown in the black line in Figure 4 above, the total revenues generated from mass market residential and commercial customers (RS 1B, 2B, 3B and 5B) grew over the period as sales volumes and customer participation steadily increased. Further, although the price per GJ of RNG declined under the revised BERC rate, the average revenue generated per residential customer was approximately $110 per customer in 2016 and remained the same by the end of 2019. This indicates that the new Short Term BERC rate has not reduced the per customer revenues for the majority of customers. When coupled with the increased number of customers enrolled, the effect is increased revenues.

The revenue generated from Long Term BERC Rate contracts also increased over the period, as demonstrated by the orange bars in Figure 4, from nil at the introduction of the Long Term BERC Rate to nearly $1.3 million by the end of 2019.

2.2 *CONCLUSION*

The evidence supports the conclusion that the revised BERC rate methodology has enhanced revenue and the recovery of RNG Program costs from RNG customers. FEI has seen growth in customer enrolments, volumes sold and revenues collected since the implementation of the revised BERC rate methodology, thereby avoiding the need to transfer some RNG Program costs to non-RNG customers that would otherwise have been triggered by unsold RNG volumes.

Presently the RNG Program is fully subscribed, meaning that all RNG supply volumes purchased by FEI are being sold to RNG customers. This is partially due to the revised BERC rate methodology contributing to increasing demand from customers, but also because RNG supplies did not materialize as originally forecast. As discussed further in Section 3 below, FEI is expecting to see significant growth of RNG supply becoming available in late 2021.

At this time, FEI believes that the revised BERC rate methodology as approved in the Decision remains appropriate as it contributes to ensuring that the demand for RNG remains strong and will support new RNG supply volumes as they become available. FEI will continue to monitor the market and RNG Program as new supply becomes available and as drivers of demand in the market evolve, such as government policy. Given the current state of supply and demand, FEI is satisfied that the BERC rate methodology in place remains appropriate and believes that a review or changes are not necessary at this time.

3. SUPPLY/DEMAND BALANCING FOR THE RNG PROGRAM

The demand for RNG currently exceeds the available supply from FEI's suppliers. In 2019, as demand was exceeding the available supply, FEI ceased accepting new enrolments in the RNG Program and curtailed the volume of RNG available for sale to large volume, interruptible RNG rate customers under Long Term BERC Rate contracts served through Rate Schedule (RS) 11B. In 2019, the total volume of RNG sold to meet customer demand was 315 TJs. The total RNG supply from existing RNG production facilities was 225 TJs. This represents a 28 percent increase in RNG supply over the 2018 total of 176 TJs. The shortfall of 90 TJs between RNG supply versus RNG sold was fulfilled with the purchase of carbon offsets.

The temporary closure of the RNG Program to new participants and the curtailment of volumes under RS 11B are likely to be maintained until late 2021. FEI forecasts that in the later part 2021 the available supply of RNG will increase significantly and will exceed the demand of all customers currently enrolled in the RNG Program. This increase in supply is due to the progress FEI has made in growing the RNG supply portfolio over the past year. Table 2

presents the new supply projects FEI expects to be completed over the three year period from 2020 through 2022. This table includes supply projects contracted to date.

Table 2: Contracted RNG Supply Projects

	1	2	3	4
	Project	**Contract Status**	**BCUC Approval Status**	**Anticipated Start Date (Month-Year)**
Existing	Fraser Valley Biogass	Contacted	Approved	N/A
	Seabreeze Farms	Contacted	Approved	N/A
	Kelowna Landfill	Contacted	Approved	N/A
	Columbia Shushwap Regional Dist.	Contacted	Approved	N/A
	City of Surrey	Contacted	Approved	N/A
			Contract Max Annual Volume (TJ/Yr)	**529**
			Expected Annual Volume (TJ/Yr)	**310**
			Proportion of Total Expected Volume	**5.3%**
Future	Tidal Stormfisher	Contracted	Approved	Aug-20
	Project #1	Contracted	In Progress	Sep-20
	Lulu Island Waste Water	Contracted	Approved	Dec-20
	Faromor	Contracted	Approved	Jan-21
	Dicklands Farm	Contracted	Approved	Sep-21
	Lethbridge Biogas	Contracted	Approved	Sep-21
	Bradam Hamilton	Contracted	Approved	Sep-21
	Tidal Niagara	Contracted	Approved	Dec-21
	City of Vancouver	Contracted	Approved	Dec-21
	Project #2	Contracted	In Progress	Dec-21
	Bradam Napanee	Contracted	Approved	Jan-22
	Matter	Contracted	Approved	Mar-22
	REN Energy	Contracted	Approved	Jul-22
	GSE	Contracted	Approved	Dec-22
			Contract Maximum Annual Volume (TJ/Yr)	**7,307**
			Expected Annual Volume (TJ/Yr)	**5,493**
			Proportion of Total Expected Volume	**94.7%**
			Grand Total Maximum Annual Volume (TJ/Yr)	***7,836***
			Grand Total Expected Annual Volume (TJ/Yr)	***5,803***

Table 2 shows the maximum contracted volume for each project as well as the expected annual volume. The expected volumes indicated in the table take into account FEI's experience that, on average, new RNG supply projects typically take time to ramp up their production to the maximum RNG volumes.

The current maximum amount of RNG that FEI can contract and remain within the existing Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) is approximately 8,900 TJs per year FEI further anticipates that it will enter into additional biomethane supply agreements before the end of 2020, such that the total maximum supply under executed agreements could reach maximum volume currently set in the GGRR.

As shown by the Grand Total Expected Volume at the bottom of Table 2, when all of FEIs supply projects are completed and supplying RNG, FEI's expected annual supply volume is approximately 5,800 TJs per year. For newly completed supply projects, there can be a ramp-up period before the full expected annual volumes of RNG can be delivered. Table 3 below shows the expected total RNG supply volumes for the years 2020 through 2024, taking this ramp up time and the timing of the new supply volumes, into account. This table includes supply from all of FEI's existing suppliers, as well as all new suppliers expected to be providing RNG between the present time and the end of 2022 as shown in Table 2.

Table 3: Total Expect RNG supply volumes 2020-2024

1	2
Year	**Expected Total RNG Supply (TJ)**
2020	290
2021	950
2022	3,850
2023	5,120
2024	5,580

Figure 5 below provides a visual representation of the monthly forecast of supply versus the monthly forecast of demand from FEI's currently enrolled RNG customers to the end of 2022. In this figure, the sum of the area under the total monthly supply line between the start of January and the end of December 2022 is equivalent to the 3,850 TJ shown in Table 3 above. Figure 5 demonstrates how the supply of RNG, including all current and expected future suppliers, will outgrow the current demand from existing customers, leading to an excess supply which will allow FEI to add new customers to the RNG Program. The total monthly supply includes RNG volumes from all new projects listed in Table 2, which also takes into account a ramp up period in production. The total monthly demand shows the un-curtailed contracted volumes of FEI's current RS 11B Long Term BERC Rate customers as well the forecasted demand from all other currently enrolled customers, but does not include any incremental demand from potential new customer enrolments under any RNG rate schedule. As discussed below, FEI has additional customers interested in entering Long Term BERC Rate contracts once additional supply is available.

Figure 5: Monthly RNG Supply and Demand 2020-2022

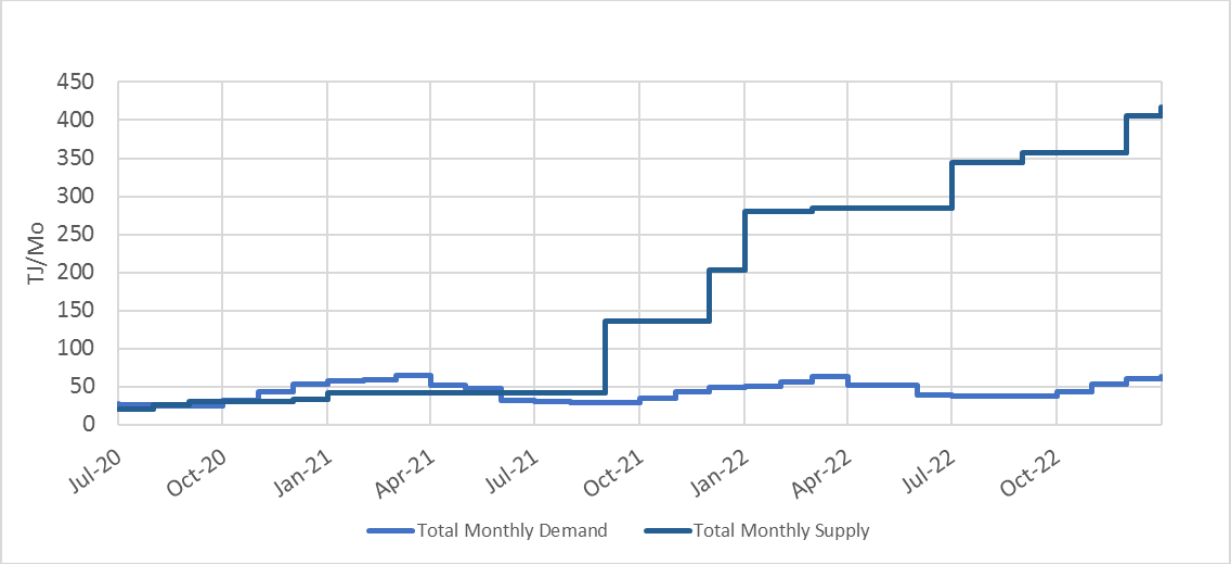


Figure 5 shows how, beginning in September of 2021, the available supply will grow beyond the demand from FEIs currently enrolled customers. In 2022, FEI expects the demand from currently enrolled customers to be approximately 580 TJs for the year, while the volume of supply is expected to exceed 3,800 TJs, or nearly seven times the volume of demand. This excess supply represents the volumes available to serve new customers.

Although FEI has not permitted new participants to enrol in the RNG Program since 2019, a number of large volume customers have made their interest in RNG known to FEI. FEI is currently aware of up to 4 PJs of potential incremental demand for RNG from such customers. The revised BERC Rate has been successful in increasing customer enrolment, sales volume and revenue. FEI believes that maintaining the current BERC rate methodology will be essential to maintaining the interest of new customers enrolling in the RNG Program in 2021 and increasing demand for this new RNG supply.

4. BVA BALANCE, BERC RATES, CCRA RATE, AND CARBON TAX FOR THE PERIOD JANUARY 1, 2016 TO JANUARY 1, 2020

4.1 *BVA BALANCE*

The following tables present the BVA balances for January 1 of each year from the date of implementation of the revised BERC rate methodology to date. The January 1 balance represents the value of RNG inventory at the start of each year, valued at the Short Term BERC Rate in effect at that time. In 2017 FEI sold more RNG than it had avilable, while there was a timing difference with its purchase of carbon offsets in 2018, which resulted in the negative opening value for January 1, 2018.

Table 4: BVA Balance

Item	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20
The BVA balance ($000)	$ 341.0	$ (471.0)	-	$ 1.5

4.2 *SHORT TERM AND LONG TERM BERC RATE*

Following the Decision, FEI implemented the revised BERC rate methodology, resulting in a Short Term BERC Rate on October 1, 2016 of $10.209 per GJ. On January 1 of the following years, the Short Term BERC rate was changed to reflect the change in the CCRA Rate and the Carbon Tax rate. The Long term BERC Rate is based on the higher of the $1 discounted rate from the Short Term BERC Rate, or the $10 per GJ floor rate. The Long Term BERC Rate has been set at $10 per GJ since implementation of the Decision, which is the approved floor rate.

The following tables present the Short Term BERC Rate and Long Term BERC Rate for January 1 of each year from the date of implementation of the revised BERC rate methodology to date.

Table 5: Short Term and Long Term BERC Rates

Item	1-Oct-16	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20
The Short Term BERC Rate	$10.209	$ 10.540	$ 10.039	$ 10.287	$ 10.535
The Long Term BERC Rate	$ 10.000	$ 10.000	$ 10.000	$ 10.000	$ 10.000

4.3 *CCRA RATE*

The following tables present the CCRA Rate for January 1 of each year from the date of implementation of the new BERC rate methodology to date.

Table 6: CCRA Rates

Item	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20
The CCRC	$ 2.050	$ 1.549	$ 1.549	$ 1.549

4.4 *CARBON TAX*

The following tables present the Carbon Tax rate[7] for January 1 of each year from the date of implementation of the new BERC rate methodology to date.

[7] Carbon tax was $1.4898 since July 1, 2012, increased to $1.7381 on April 1, 2018, and increased to 1.9864 on April 1, 2019.

Table 7: Carbon Tax Rates

Item	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20
The Carbon Tax	$ 1.4898	$ 1.4898	$ 1.7381	$ 1.986

4.5 *BVA BALANCE TRANSFER RATE BASE DEFERRAL ACCOUNT*

The following tables present the costs transferred from the BVA to the BVA Balance Transfer rate base deferral account, as of January 1 of each year from the date of implementation of the new BERC rate methodology to date.

Table 8: BVA Balance Transfer

Item	1-Jan-17	1-Jan-18	1-Jan-19	1-Jan-20
The costs transferred from the BVA to the BVA balance Transfer rate base deferral account ($000)	2,977.0	2,522.0	3,701.8	2,625.6

5. MONTHLY CUSTOMER DATA FOR THE PERIOD JANUARY 1, 2016 TO JANUARY 1, 2020

As shown in section 2 above, FEI has seen steady growth in net customer additions since the implementation of the revised BERC rate in October 2016.

Appendix A presents the monthly data for the period from the date of implementation of the revised BERC rate methodology Decision to date. The tables in Appendix A show the number of customers by rate classes and offering (i.e., Short Term BERC Rate versus Long Term BERC Rate), churn rate[8] by customer class, RNG sales quantities by rate class and by offering, and RNG sales revenue by rate classes and by offering.

6. LONG-TERM CONTRACTS SUMMARY OF TERMS AND CONDITIONS

In the Decision, FEI was directed to provide a summary of the terms and conditions that have been included in executed contracts to date. FEI has signed three Long Term BERC Rate agreements which have been filed with the BCUC as Tariff Supplements under RS 11B. These three agreements are with UBC, City of Vancouver and Translink, are approved by the BCUC in Orders G-64-18, G-212-18, and G-19-19 and filed with the BCUC under Tariff Supplements K-1,

[8] Churn Rate is calculated using the number of customer drop off in the month dived by the average number of customers in the month.

K-2, and K-3 respectively. The tables in Appendix B summarize the contract terms and conditions for each of the executed agreements.

7. CUSTOMER AWARENESS AND EDUCATION

FEI believes that customer knowledge and awareness levels about the RNG Program have increased during the period from 2016 to 2019, which has contributed to the increased program participation over that period. During 2016 to 2019, customer awareness expenditures focused on customer research, mass market campaigns targeted towards the residential customer segment, along with education to municipalities and commercial customers. In 2018, as it became apparent that demand would exceed supply, customer awareness expenditures for the RNG Program were scaled back.

In 2016, FEI contracted a customer research company to garner a better understanding of customer perceptions and knowledge of RNG. The findings from the customer research study indicated low familiarity of the RNG Program among FEI customers in that only 6 percent were "very familiar" with FEI's RNG Program. Barriers to program participation were also identified that included price, a lack of understanding of the RNG Program, scepticism around the environmental benefits of RNG, questions about safety, lack of knowledge of how RNG is sourced, along with how existing gas appliances in the home could function with RNG. In addition, the research identified certain customer segments that had a higher potential for program participation. The customer research study provided insights into the development of new customer outreach and awareness campaigns and delivery of those campaigns through different media channels. This new campaign was developed and launched into market in 2017 over various online channels, included behaviourally-targeted display banners, pre-roll video, social media, and out of home channels, including radio spots and Skytrain platform posters.

In 2017, based on the research results, a redesigned customer awareness campaign launched which encouraged the audience to learn more about the RNG Program by visiting the RNG webpage on the Company's site and also provided information for customers on how to sign up for the program and choose the blend of their choice. The RNG webpage featured information on the environmental benefits of RNG, its source, and a calculator to help customers understand the incremental price impact to their gas bill if they enrolled into the RNG Program and selected a particular RNG blend. Customer communications channels included newsletters, bill inserts, radio, digital (including video and banner ads), radio and skytrain platforms. With the new campaign and unique webpage, views to the RNG landing page (see Table 9 below) increased significantly in 2017, both with organic searches (approximately 50 percent increase), as well as from paid media (approximately 100 percent increase). In addition, one of the digital videos developed had strong results, generating more than 64,000 views on YouTube, and had a view rate of 84 percent on Instagram. Overall, the new customer

awareness campaign was successful and customer participation rates in 2017 showed a 20 percent increase year over year.

In 2018, a campaign with similar messaging was launched but was scaled back as it became apparent that the demand for RNG would exceed the available supply. As a result, the messaging focused on the opportunity to learn more about RNG rather than encouraging customers to enrol into the program.

Through 2019, customer knowledge and awareness expenditures were focused on sponsorship of educational events targeting commercial and residential customer segments.

Overall, from the period of 2016 to 2019, RNG program participation rates have increased close to 50 percent, from 7,478 at 2016 year end to 11,209 at the end of 2019, as can be seen in Table 9 below.

Table 9: RNG Program Customer Participation and Marketing Metrics

Year	Total RNG Customers as at December 31	Unique Pageviews to RNG Program Page
2016	7,478	16,388
2017	8.982	22,296
2018	10,333	11,943
2019	11,209	113

The following table provides a summary of the customer awareness expenditures for the period from 2016 to 2019.

Table 10: RNG Program Customer Awareness Expenditures

Year	Expenditures ($000s)	Description
2016	$100	Customer awareness messaging and customer research study
2017	$246	Development and launch of new awareness campaign into market
2018	$151	New creative continues on a scaled-back basis as indications are that demand will outstrip supply
2019	$29	Customer awareness efforts very limited due to closure of enrolment

Customer participation levels, both existing and new customers, will continue to be an area of focus as further increases in customer awareness can still be achieved. Once additional supply volumes become available to customers in 2021 and the RNG program reopens for customer enrolment, FEI will be able to relaunch its customer education and awareness campaigns to encourage increases in future enrolments as well as retain currently enrolled customers.

8. CONCLUSION

FEI believes that the evidence of increasing enrolments, volume commitments, and revenues generated since implementation of the revised BERC rate methodology, including the Short Term and the Long Term BERC Rates approved in the Decision, have been successful in achieving the three overarching objectives of the BCUC Panel when it issued the Decision.[9] The current BERC rate methodology has enhanced revenue and the recovery of RNG Program costs from RNG customers, FEI has been able to manage biomethane inventory without the need to transfer unsold biomethane, and the BERC Rate mechanism has proven to be robust, effective, and provided for regulatory efficiency as it has been unnecessary to file subsequent applications since the Decision.

Although the RNG Program is currently fully subscribed, FEI is expecting significant new volumes of RNG supply to become available in the later part of 2021. With the new oncoming supply volumes, FEI will be able to reopen enrolment to satisfy the growing customer demand that the program is currently not able to fulfil. FEI expects that once supply becomes available, participation in the RNG Program will continue to grow.

In the meantime, both the supply and demand forecasts for RNG are somewhat fluid and may respond to market signals beyond the BERC rate methodology. Outside factors such as government policies, legislative and regulatory changes, climate change objectives, and the ongoing COVID-19 pandemic can affect the timing and magnitude of both supply and demand. FEI will continue to monitor these developments and assess their impact on the long-term balance between supply and demand.

Given the current state of supply and demand, FEI is satisfied that the BERC rate methodology in place remains appropriate and that changes are not necessary at this time. If warranted in future, FEI will bring forward an application to the BCUC for approval of any changes to the BERC rate methodology or the RNG Program.

[9] Decision, p. 17.

Appendix A
MONTHLY CUSTOMER DATA

Table 1: Number of Customers by Rate Classes and by Offering

	Short-term						Long-term
	Rate 1B	Rate 2B	Rate 3B	Rate 5B	Rate 11B Standard	Total	Rate 11B
Date	# of customers	# of customers	# of customers	# of customers	# of customers	# of customers	# of customers
Jan-16	6,630	125	11	0	4	6,770	0
Feb-16	6,637	127	11	0	4	6,779	0
Mar-16	6,624	128	11	0	5	6,768	0
Apr-16	6,630	130	11	0	5	6,776	0
May-16	6,661	130	11	0	5	6,807	0
Jun-16	6,705	131	11	0	5	6,852	0
Jul-16	6,764	131	11	0	5	6,911	0
Aug-16	6,832	131	11	0	5	6,979	0
Sep-16	6,918	130	11	0	5	7,064	0
Oct-16	6,942	132	11	0	5	7,090	0
Nov-16	7,111	146	13	0	5	7,275	0
Dec-16	7,305	154	14	0	5	7,478	0
Jan-17	7,448	158	15	0	5	7,626	0
Feb-17	7,558	159	15	0	5	7,737	0
Mar-17	7,615	159	15	0	5	7,794	0
Apr-17	7,685	158	16	0	5	7,864	0
May-17	7,767	166	17	0	5	7,955	0
Jun-17	7,894	165	17	0	5	8,081	0
Jul-17	8,036	168	17	0	5	8,226	0
Aug-17	8,158	172	17	0	5	8,352	0
Sep-17	8,296	171	17	0	5	8,489	0
Oct-17	8,481	171	17	0	4	8,673	1
Nov-17	8,625	175	16	0	4	8,820	1
Dec-17	8,781	180	16	0	4	8,981	1
Jan-18	8,900	180	16	0	4	9,100	1
Feb-18	9,035	181	16	0	4	9,236	1
Mar-18	9,104	181	15	0	4	9,304	1
Apr-18	9,216	181	14	0	4	9,415	1
May-18	9,301	184	14	0	4	9,503	1
Jun-18	9,380	191	14	0	4	9,589	1
Jul-18	9,487	192	14	0	4	9,697	1
Aug-18	9,577	197	14	0	4	9,792	1
Sep-18	9,719	195	14	0	4	9,932	1
Oct-18	9,848	198	14	1	4	10,065	2
Nov-18	9,982	202	14	1	4	10,203	2
Dec-18	10,108	205	14	0	4	10,331	2
Jan-19	10,215	203	16	0	4	10,438	2
Feb-19	10,330	208	16	0	4	10,558	3
Mar-19	10,379	207	16	1	4	10,607	3
Apr-19	10,462	206	17	1	4	10,690	3
May-19	10,573	206	17	1	4	10,801	3
Jun-19	10,700	208	17	1	3	10,929	3
Jul-19	10,844	220	17	1	3	11,085	3
Aug-19	10,942	222	17	1	3	11,185	3
Sep-19	10,935	221	17	2	3	11,178	3
Oct-19	10,939	219	17	1	2	11,178	3
Nov-19	11,014	218	17	1	2	11,252	3
Dec-19	10,968	217	17	2	2	11,206	3
Jan-20	10,914	214	16	2	2	11,148	3
Feb-20	10,855	209	16	2	2	11,084	3
Mar-20	10,792	204	15	2	2	11,015	3
Apr-20	10,729	203	15	2	2	10,951	3
May-20	10,706	203	15	2	2	10,928	3

Table 2: Churn Rate[1] by Rate Classes and by Offering

	Short-term					Long-term
	Rate 1B	Rate 2B	Rate 3B	Rate 5B	Rate 11B Standard	Rate 11B Long Term
Date	Churn Rate	Churn Rate	Churn Rate	Churn Rate	Churn Rate	Churn Rate
Jan-16	1.2%	7.2%	27.3%	0.0%	0.0%	0.0%
Feb-16	1.0%	0.0%	9.1%	0.0%	0.0%	0.0%
Mar-16	0.9%	0.0%	9.1%	0.0%	0.0%	0.0%
Apr-16	1.0%	0.0%	9.1%	0.0%	0.0%	0.0%
May-16	1.2%	1.6%	9.1%	0.0%	0.0%	0.0%
Jun-16	1.5%	0.0%	9.1%	0.0%	0.0%	0.0%
Jul-16	1.4%	0.8%	9.1%	0.0%	0.0%	0.0%
Aug-16	1.3%	1.6%	9.1%	0.0%	0.0%	0.0%
Sep-16	1.0%	0.8%	9.1%	0.0%	0.0%	0.0%
Oct-16	1.8%	0.8%	9.1%	0.0%	0.0%	0.0%
Nov-16	1.4%	0.7%	8.3%	0.0%	0.0%	0.0%
Dec-16	1.0%	0.0%	8.0%	0.0%	0.0%	0.0%
Jan-17	1.1%	1.4%	7.7%	0.0%	0.0%	0.0%
Feb-17	0.9%	2.1%	7.7%	0.0%	0.0%	0.0%
Mar-17	1.0%	2.8%	7.7%	0.0%	0.0%	0.0%
Apr-17	1.2%	0.7%	7.4%	0.0%	0.0%	0.0%
May-17	1.3%	0.0%	7.1%	0.0%	0.0%	0.0%
Jun-17	1.1%	2.1%	7.1%	0.0%	0.0%	0.0%
Jul-17	1.5%	1.4%	7.1%	0.0%	0.0%	0.0%
Aug-17	1.3%	0.0%	7.1%	0.0%	0.0%	0.0%
Sep-17	1.0%	0.7%	7.1%	0.0%	0.0%	0.0%
Oct-17	1.2%	1.3%	14.3%	0.0%	25.0%	0.0%
Nov-17	1.1%	0.0%	14.8%	0.0%	0.0%	0.0%
Dec-17	1.1%	0.0%	7.4%	0.0%	0.0%	0.0%
Jan-18	0.9%	2.0%	7.4%	0.0%	0.0%	0.0%
Feb-18	0.7%	2.0%	7.4%	0.0%	0.0%	0.0%
Mar-18	1.0%	2.6%	15.4%	0.0%	0.0%	0.0%
Apr-18	0.9%	2.6%	16.0%	0.0%	0.0%	0.0%
May-18	1.3%	0.0%	8.0%	0.0%	0.0%	0.0%
Jun-18	1.4%	1.3%	8.0%	0.0%	0.0%	0.0%
Jul-18	1.3%	0.6%	8.0%	0.0%	0.0%	0.0%
Aug-18	1.2%	0.0%	8.0%	0.0%	0.0%	0.0%
Sep-18	1.0%	2.5%	8.0%	0.0%	0.0%	0.0%
Oct-18	1.0%	1.9%	8.0%	0.0%	0.0%	0.0%
Nov-18	1.0%	2.4%	8.0%	0.0%	0.0%	0.0%
Dec-18	0.9%	0.0%	8.0%	0.0%	0.0%	0.0%
Jan-19	1.1%	3.6%	7.4%	0.0%	0.0%	0.0%
Feb-19	0.9%	1.8%	7.4%	0.0%	0.0%	0.0%
Mar-19	1.1%	3.0%	7.4%	0.0%	0.0%	0.0%
Apr-19	0.9%	1.8%	7.1%	0.0%	0.0%	0.0%
May-19	1.0%	1.8%	7.1%	0.0%	0.0%	0.0%
Jun-19	1.1%	1.8%	7.1%	0.0%	25.0%	0.0%
Jul-19	1.0%	1.7%	14.3%	0.0%	0.0%	0.0%
Aug-19	1.2%	0.6%	0.0%	0.0%	0.0%	0.0%
Sep-19	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%
Oct-19	0.9%	1.2%	0.0%	0.0%	25.0%	0.0%
Nov-19	0.7%	1.7%	0.0%	0.0%	0.0%	0.0%
Dec-19	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%
Jan-20	0.6%	1.8%	7.4%	0.0%	0.0%	0.0%
Feb-20	0.6%	3.0%	0.0%	0.0%	0.0%	0.0%
Mar-20	0.6%	3.0%	7.7%	0.0%	0.0%	0.0%
Apr-20	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%
May-20	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%

[1] Churn Rate is calculated using the number of customer drop off in the month dived by the average number of customers in the month.

Table 3: RNG Sales Quantity by Rate Classes and by Offering

	RNG Sales Quantity (TJ)							
Date	**Rate 1B**	**Rate 2B**	**Rate 3B**	**Rate 5B**	**Rate 11B**	**Rate 11B Long term**	**Rate 30 Off System**	**Total**
Jan-16	9.0	1.4	1.4	0.00	7.60	0.00	0.00	19.5
Feb-16	7.0	0.6	0.3	0.00	7.52	0.00	0.00	15.4
Mar-16	6.3	0.5	0.8	0.00	7.16	0.00	0.00	14.7
Apr-16	3.3	0.6	0.4	0.00	7.28	0.00	0.00	11.5
May-16	2.4	0.2	0.3	0.00	11.50	0.00	0.00	14.3
Jun-16	1.9	0.2	0.2	0.00	7.02	0.00	0.00	9.3
Jul-16	1.7	0.1	0.2	0.00	6.97	0.00	0.00	9.0
Aug-16	1.6	0.2	0.2	0.00	6.92	0.00	0.00	9.0
Sep-16	2.2	0.2	0.2	0.00	7.07	0.00	0.00	9.7
Oct-16	4.5	0.4	0.3	0.00	7.35	0.00	0.00	12.5
Nov-16	7.0	0.9	0.6	0.00	7.38	0.00	0.00	15.8
Dec-16	13.6	1.5	1.0	0.00	5.79	0.00	0.78	22.7
Jan-17	13.8	2.1	0.9	0.00	5.88	0.00	0.00	22.7
Feb-17	11.6	1.6	0.7	0.00	7.61	0.00	0.00	21.5
Mar-17	9.3	1.4	0.8	0.00	9.43	0.00	0.00	21.0
Apr-17	6.7	0.6	1.5	0.00	11.27	0.00	0.00	20.1
May-17	4.3	0.9	1.0	0.00	8.05	0.00	0.00	14.2
Jun-17	2.6	0.4	0.4	0.00	7.61	0.00	0.00	11.0
Jul-17	2.2	0.3	0.6	0.00	8.24	0.00	0.00	11.3
Aug-17	2.0	0.3	1.0	0.00	6.52	0.00	0.00	9.8
Sep-17	2.4	0.3	1.1	0.00	7.59	0.00	0.00	11.5
Oct-17	7.1	1.0	1.6	0.00	4.95	5.92	0.00	20.5
Nov-17	10.9	1.8	3.1	0.00	9.22	5.68	0.00	30.8
Dec-17	15.4	2.5	3.6	0.00	12.31	5.00	0.00	38.8
Jan-18	13.67	2.34	3.48	0.00	2.15	5.92	0.00	27.6
Feb-18	14.35	2.46	1.08	0.00	15.90	5.92	0.00	39.7
Mar-18	11.88	2.08	4.19	0.00	7.79	5.21	0.00	31.2
Apr-18	7.85	0.88	0.98	0.00	8.86	0.55	0.00	19.1
May-18	3.20	0.62	0.57	0.00	2.68	3.44	0.00	10.5
Jun-18	3.08	0.43	0.42	0.00	2.50	5.92	0.00	12.3
Jul-18	2.66	0.30	0.29	0.00	2.43	5.84	0.00	11.5
Aug-18	2.43	0.47	0.31	0.00	2.02	5.39	0.00	10.6
Sep-18	3.83	0.55	0.41	0.00	1.78	5.92	0.00	12.5
Oct-18	7.96	1.09	0.97	0.00	-0.07	9.47	0.00	19.4
Nov-18	11.24	1.66	1.07	0.07	3.30	23.87	0.00	41.2
Dec-18	14.73	2.31	0.68	0.05	1.90	20.89	0.00	40.6
Jan-19	16.0	2.6	3.1	0.24	1.89	24.09	0.00	47.9
Feb-19	18.7	2.9	0.9	0.56	5.33	19.41	0.00	47.8
Mar-19	12.9	2.1	3.3	0.82	3.51	20.43	0.00	43.0
Apr-19	8.0	0.7	1.4	0.57	1.64	18.93	0.00	31.3
May-19	4.2	1.0	0.9	0.22	1.57	14.93	0.00	22.8
Jun-19	3.2	0.4	0.7	0.12	1.37	13.83	0.00	19.5
Jul-19	3.1	0.4	0.7	0.08	1.42	13.83	0.00	19.6
Aug-19	2.9	0.4	0.4	2.50	0.15	1.38	0.00	7.8
Sep-19	3.9	0.6	0.5	0.98	-0.01	0.00	0.00	6.0
Oct-19	10.2	2.0	1.9	1.89	0.00	0.00	0.00	16.0
Nov-19	13.8	2.6	1.2	2.41	0.00	0.00	0.00	20.0
Dec-19	16.6	3.1	2.1	11.62	0.00	0.00	0.00	33.4
Jan-20	17.8	3.6	2.2	-5.71	0.00	0.00	0.00	17.9
Feb-20	15.5	3.0	2.0	2.95	0.00	23.46	0.00	46.8
Mar-20	13.8	2.9	3.1	1.12	0.00	5.56	0.00	26.5
Apr-20	9.3	1.2	0.7	3.85	0.00	10.76	0.00	25.8
May-20	5.0	1.2	3.0	1.26	0.00	8.93	0.00	19.4

Table 4: RNG Sales Revenue by Rate Classes and by Offering

	RNG Revenue ($000)							
Date	Rate 1B	Rate 2B	Rate 3B	Rate 5B	Rate 11B	Rate 11B Long term	Rate 30 Off System	Total
Jan-16	130.19	20.87	20.02	-	109.54	-	-	280.62
Feb-16	100.56	8.85	4.30	-	108.43	-	-	222.14
Mar-16	90.35	7.63	10.82	-	103.17	-	-	211.96
Apr-16	47.33	8.52	5.62	-	104.89	-	-	166.36
May-16	34.15	2.69	4.00	-	165.78	-	-	206.61
Jun-16	27.34	2.42	3.57	-	101.12	-	-	134.46
Jul-16	24.07	2.11	2.90	-	100.48	-	-	129.56
Aug-16	23.16	3.37	3.19	-	99.70	-	-	129.42
Sep-16	32.11	3.58	2.29	-	101.94	-	-	139.92
Oct-16	46.31	3.74	2.79	-	104.67	-	-	157.52
Nov-16	71.00	8.91	6.59	-	46.58	-	-	133.07
Dec-16	139.29	15.61	10.26	-	59.14	-	11.20	235.49
Jan-17	145.88	21.89	9.21	-	62.26	-	3.52	242.76
Feb-17	121.92	17.10	7.17	-	80.22	-	-	226.42
Mar-17	98.44	15.11	8.47	-	99.44	-	-	221.45
Apr-17	70.87	6.32	15.53	-	118.79	-	-	211.51
May-17	45.74	9.25	10.12	-	84.85	-	-	149.96
Jun-17	26.95	3.72	4.63	-	80.15	-	-	115.46
Jul-17	22.88	3.15	6.54	-	86.81	-	-	119.38
Aug-17	21.22	3.14	10.05	-	68.77	-	-	103.18
Sep-17	25.60	3.55	12.05	-	79.98	-	-	121.19
Oct-17	74.98	10.27	16.70	-	54.35	59.16	-	215.46
Nov-17	115.18	19.24	32.62	-	95.44	56.81	-	319.28
Dec-17	161.89	26.05	38.13	-	128.37	50.00	-	404.43
Jan-18	137.67	23.52	35.14	-	23.36	59.16	-	278.85
Feb-18	144.04	24.65	26.21	-	158.89	59.16	-	412.95
Mar-18	119.27	20.89	26.70	-	78.19	52.12	-	297.17
Apr-18	78.75	8.83	9.87	-	88.91	5.48	-	191.85
May-18	32.08	6.25	5.76	-	26.85	34.37	-	105.32
Jun-18	31.00	4.29	4.25	-	25.12	59.16	-	123.82
Jul-18	26.67	3.04	2.92	-	24.43	58.35	-	115.41
Aug-18	24.38	4.73	3.12	-	20.27	53.88	-	106.38
Sep-18	38.41	5.52	4.12	-	17.88	59.16	-	125.09
Oct-18	79.89	10.92	9.76	-	(0.70)	94.90	-	194.76
Nov-18	112.83	16.62	10.77	0.68	33.17	239.00	-	413.07
Dec-18	147.73	23.20	6.84	0.50	19.09	209.25	-	406.62
Jan-19	164.51	27.15	31.39	2.51	19.43	244.64	-	489.63
Feb-19	192.71	29.49	8.76	5.77	54.80	197.85	-	489.38
Mar-19	132.50	21.36	34.21	8.41	36.15	195.99	-	428.63
Apr-19	82.24	7.39	14.64	5.89	16.86	189.33	-	316.35
May-19	42.82	10.61	9.05	2.23	16.17	149.34	-	230.22
Jun-19	32.55	3.65	7.06	1.26	14.06	138.34	-	196.93
Jul-19	31.73	4.73	7.56	0.80	14.58	138.34	-	197.74
Aug-19	30.20	4.46	4.07	25.75	1.58	13.82	-	79.89
Sep-19	40.09	6.47	5.53	10.09	(0.14)	-	-	62.04
Oct-19	104.97	21.02	19.03	19.39	-	-	-	164.41
Nov-19	141.69	26.43	12.57	95.79	-	-	-	276.47
Dec-19	170.31	31.91	21.60	48.56	-	-	-	272.38
Jan-20	187.67	37.64	23.07	(57.91)	-	-	-	190.47
Feb-20	162.86	31.50	20.65	31.12	-	234.59	-	480.72
Mar-20	145.72	30.18	32.46	11.80	-	55.62	-	275.78
Apr-20	98.31	12.68	6.89	40.54	-	107.61	-	266.03
May-20	52.73	12.17	31.68	13.32	-	89.27	-	199.17

Appendix B

SUMMARY OF LONG TERM CONTRACTS TERMS AND CONDITIONS

Table 1: Summary of UBC Long Term BERC Rate Contract

Topic	Terms and Conditions
Contract Term	10 years
Contract Price	$10 per GJ
Quantity over the term of the contract	710 TJs
Minimum Annual Quantity	71 TJs
Additional Quantity	subject to availability, the customer may purchase additional quantity up to the Maximum Annual Quantity.
Maximum Annual Quantity	104 TJs
Early Termination Provision	By providing one year's notice and by paying 50% of the Termination Payment.
Termination Payment	(i)The Minimum Annual Quantity multiplied by (ii) the BERC less the CCRA Rate; and (iii) the lesser of the number of years (calculated to include part years) remaining in the terms of the Agreement if the Agreement had not been terminated and two years.
Rate Escalation	Annual Adjustment of the Contract Price equals: $10 per GJ multiplied by 50% increase of the Consumer Price Index (Canada) over the previous year.
Effective Date	July 1, 2017 (Agreement), October 1, 2017 (BCUC Approval)[1]
Expiry Date	June 30, 2027
Floor Price	The higher of: (a) the Long Term BERC rate or (b) the sum of the following: (i) the approved January 1st CCRA RATE; (ii) carbon tax; (iii) any other taxes applicable to conventional natural gas sales.
Price adjustment after the fifth year	The higher of: (a) the Long Term BERC rate or (b) the sum of the following: (i) the approved January 1st CCRA RATE; (ii) carbon tax; (iii) any other taxes applicable to conventional natural gas sales.

[1] BCUC Order G-64-18.

Table 2: Summary of City of Vancouver Long Term BERC Rate Contract

Topic	Terms and Conditions
Contract Term	5 years
Renewal Term	a term of 5 years
Contract Price	$10 per GJ
Quantity over the term of the contract	360 TJs
Minimum Annual Quantity	Year 1: 83 TJs Year 2: 98 TJs Year 3: 93 TJs Year 4: 33 TJs Year 5: 53 TJs Each year of the renewal term: 40 TJs
Additional Quantity	subject to availability, the customer may purchase additional quantity with a yearly total quantity not exceeding Maximum Annual Quantity .
Maximum Annual Quantity	Year 1: 95 TJs Year 2: 150 TJs Year 3: 150 TJs Year 4: 150 TJs Year 5: 150 TJs Each year of the renewal term: 150 TJs
Early Termination Provision	By providing one year's notice and by paying 50% of the Termination Payment.
Termination Payment	(a)The Minimum Annual Quantity for the lesser of: (i) the remaining term of the agreement, and (ii) 2 years; multiplied by (b) the BERC less the CCRA RATE .
Rate Escalation	Annual Adjustment of the Contract Price equals: $10 per GJ multiplied by 50% increase of the Consumer Price Index (Canada) over the previous year.
Effective Date	October 1, 2018[2]
Expiry Date	September 30, 2023
Floor Price	the sum of the following: (i) the approved January 1st CCRA RATE in each year of the Renewal Term; (ii) carbon tax; (iii) any other taxes applicable to conventional natural gas sales.
Renewal Term Charge	The higher of (a) the Adjusted Long Term BERC rate or (b) the Floor Price.

[2] BCUC Order G-212-18.

Table 3: Summary of Translink Long Term BERC Rate Contract

Topic	Terms and Conditions
Contract Term	5 years
Renewal Term	a term of 5 years
Contract Price	$10 per GJ
Quantity over the term of the contract	1,050 TJs
Minimum Annual Quantity	Year 1: 50 TJs Year 2: 100 TJs Year 3: 150 TJs Year 4: 250 TJs Year 5: 500 TJs
Early Termination Provision	By providing one year's notice and by paying 50% of the Termination Payment.
Termination Payment	(a)The Minimum Annual Quantity for the lesser of: (i) the remaining term of the agreement, and (ii) 2 years; multiplied by (b) the BERC less the CCRA RATE.
Rate Escalation	Annual Adjustment of the Contract Price equals: $10 per GJ multiplied by 50% increase of the Consumer Price Index (Canada) over the previous year.
Effective Date	February 1, 2019[3]
Expiry Date	January 31, 2024
Floor Price	the sum of the following: (i) the approved January 1st CCRA RATE in each year of the Renewal Term; (ii) carbon tax; (iii) any other taxes applicable to conventional natural gas sales.
Renewal Term Charge	The higher of (a) the Adjusted Long Term BERC rate or (b) the Floor Price.

[3] BCUC Order G-19-19.