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April 7, 2017

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Mr. Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

Re: FortisBC Energy Inc. (FEI)

Project No. 3698899

2016 Rate Design Application (the Application) – Fort Nelson Evidentiary Update

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On December 19, 2016, FEI filed the Application referenced above, and on February 2, 2017, in accordance with British Columbia Utilities Commission Order G-6-17 setting out the Regulatory Timetable for the review of the Application, FEI submitted a Supplemental Filing to the Application. The Supplemental Filing included Section 13 – Rate Design for Fort Nelson, along with Appendices 13-1 to 13-6.

On March 9, 2017, Workshop No. 2 (the Workshop) was held on the Cost of Service Allocation (COSA) models, the proposals in the Application, and the approvals sought.

During the Workshop, staff raised a question about whether there should be a different Peak Load Carrying Capacity (PLCC) value used for Fort Nelson as a separate entity.[1] The PLCC is intended to recognize that there is capacity embedded in the minimum system and make an adjustment in the Peak Day Demand allocator to account for this. Since the Workshop, FEI considered the notion of using a Fort Nelson-specific PLCC both internally and in consultation with EES Consulting and concluded that using a Fort Nelson specific PLCC would be more appropriate given Fort Nelson has its own Minimum System Study and because it is a separate region for rate making purposes. Consequently, FEI has conducted further analysis using a separate PLCC for Fort Nelson.

[1] Workshop 2 Transcript, Volume 2, p. 196, lines 12-24.

As a result, in this evidentiary update, the COSA results for Fort Nelson have been revised reflecting the use of a specific PLCC for Fort Nelson of 1.178 GJ per customer (as compared to the PLCC of 0.205 GJ per customer for FEI as a whole including Fort Nelson). FEI believes that the use of the Fort Nelson-specific PLCC is appropriate since it uses data and analysis specific to the service area in which it is being applied and is also better for Fort Nelson customers because it reduces the magnitude of rate rebalancing.

FEI has filed this evidentiary update at this time in order to provide participants with the latest information prior to the information request stage of the proceeding.

FEI has included black-lined and clean versions where appropriate, of the following sections to help parties identify the changes made to the Application as a result of this evidentiary update.

Description	Revised Pages
Supplemental Filing, Section 13 – Rate Design for Fort Nelson (Blacklined and Clean)	Pages 13-i-iii, 13-3, 13-10, 13-17, 13-20, 13-41, 13-44, 13-47, 13-49 to 13-59
Appendix 1-2 – Draft Final Order – Revised (Blacklined Version Only)	All Pages
Appendix 13-1 – Minimum System Study for Fort Nelson (Blacklined and Clean)	Page 4. Pages 5 to 6 deleted.
Appendix 13-4 – Fort Nelson Baseline COSA Financial Schedules (Clean version only)	All Pages
Appendix 13-5 – Fort Nelson Final COSA Financial Schedules (Clean version only)	All Pages
Appendix 13-6 – Proposed Fort Nelson Gas Tariff, effective June 1, 2018 (Blacklined version only)	Pages FN-1.1, FN-2.1, and FN-3.1

The pages have been printed single-sided to facilitate insertion into the binder volumes, and can be inserted sequentially, keeping the current page in place and marking it with a stroke through to indicate it has been replaced. Appendices 13-4 and 13-5 can be replaced in their entirety in the binder volumes.

If further information is required, please contact Richard Gosselin at (604) 576-7178.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

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- To set a Storage and Transport Charge based on classifying midstream costs as demand-related and allocating those costs to all sales customers based on their load factor adjusted volume, as discussed in section 13.4.2.

Residential Rates

6. Approval of the following for Rate Schedule 1 (formerly Rate 1):

- To set the Basic Charge per Day at $0.3003 and the Delivery Charge at $3.512 per GJ as a result of unbundling the rate structure in a way that minimizes the bill increase for any individual customer as discussed in sections 13.5.4 and 13.7.

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Commercial Rates

7. Approval to change the annual volume threshold between small and large commercial customers from 6,000 GJ to 2,000 GJ and to set the Basic, Delivery, Commodity, and Storage and Transport Charges for commercial customers to align with the 2,000 GJ threshold for FEI customers as discussed in sections 13.5.5 and 13.7, as follows:

- For Rate Schedule 2 (formerly Rate 2.1 – customers whose normal annual consumption is less than 2,000 GJ):
  - To set the Basic Charge per Day at $1.2008 and Delivery Charge at $3.989 per GJ as a result of unbundling the rate structure as discussed in sections 13.5.5 and 13.7.

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- For Rate Schedule 3 (formerly Rate 2.2, and Rate 2.1 customers whose normal annual consumption is greater than 2,000 GJ):
  - To set the Basic Charge per Day at $3.1581 and Delivery Charge at $3.631 per GJ as a result of unbundling the rate structure as discussed in sections 13.5.5 and 13.7.

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- For Rate Schedule 6 (formerly Rate 2.3):
  - To set the Basic Charge per Day and Delivery Charge equal to FEI's approved January 1, 2018 RS 6 rates, as a result of unbundling the rate structure.

Industrial Rates

8. Approval of the following for Rate Schedule 5 (formerly Rate 3.1):

- To set the Daily Demand equal to 1.10 multiplied by the greater of:
  i. The customer's highest average daily consumption of any month during the winter period (November 1 to March 31); or

Table 13-2: Action Items, Key Discussion Topics and FEI Response

Action Items	Action / Response	Reference
Physical flow and commercial transactions contributing to gas costs	FEI has provided a background on gas supply arrangement to understand the physical flow and commercial transactions contributing to the gas costs.	Section 13.2.1.2
Estimated costs to unbundle Fort Nelson bills	Costs are estimated at approximately $70 thousand to unbundle and restructure the rates for Fort Nelson	Section 13.5.2
Efficiencies gained from unbundling	Fort Nelson customers sum to approximately 0.2% of FEI's total customers. Unbundling Gas and Delivery Charges for Fort Nelson bills will simplify the discussion for FEI's Customer Service Representatives but will not result in a reduction of employees.	
Key Discussion Topics	**Action / Response**	**Reference**
Bundled or Unbundled Rates	FEI is proposing to unbundle the rates which will make rate changes more transparent.	Section 13.5.2
Gas Cost Allocation Methodology	FEI is proposing to allocate midstream costs based on a load factor volume adjusted basis and allocate commodity costs based on sales volumes.	Section 13.4.2
Customer Segmentation – Commercial Customers	FEI is proposing to change the customer segmentation threshold between small and large commercial customers from 6,000 GJ/year to 2,000 GJ/year.	Section 13.5.5
Revenue to Cost Ratio and Rebalancing	FEI is proposing to rebalance Rate 2.2 to bring the R:C ratio within the range of reasonableness. The revenue responsibility would be shifted to Rate 1 with an average bill impact of approximately 1.4% for Rate 1 customers. RS 25 R:C ratio after rate design proposals is 111%. FEI is proposing not to do any rebalancing of RS 25.	Section 13.7.1.4
Common Rates	FEI is not proposing the adoption of postage stamp rates for Fort Nelson at this time.	Section 13.7.3

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Deleted: to limit rate increases to Rate 1 to 10% taking into account rate increases from the 2017 / 2018 RRA and this Rate Design. Rate 2.1 rates will decrease such that its R:C ratio is 110% and Rate 2.2 rates will decrease such that the total rebalancing for all Rates is zero.

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FEI received feedback from stakeholders and customers regarding FEI's explanation of the context of Fort Nelson's rate design provided in the workshop. Specific feedback on the key discussion topics and issues mentioned above is included in the relevant sections below as set out in the table above.

13.3.2 Residential Customer Survey

As explained in Section 4.6, FEI retained the services of Sentis to conduct an online survey to measure residential customers' knowledge of Fort Nelson's existing rate structure and bill components and to better understand customers' preference regarding various rate design considerations. The detailed version of this study can be found in Appendix 4-5 to this Application. A brief summary of the survey results is presented below.

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Table 13-9: Delivery Cost of Service Classification Summary

Classification	($000s)	%of total
Energy	$19	0.8%
Demand	$1,363	54.8%
Customer	$1,107	44.4%
Total	**$2,489**	**100.0%**

13.4.1.5.3 COST ALLOCATION SUMMARY

Table 13-10 summarizes the results of the delivery cost of service allocation to rates from the Fort Nelson COSA Model.

Table 13-10: Delivery Cost of Service Allocation to Rates Summary

Rate	($000s)	% of total
1	$1,247	50.1%
2.1	$914	36.7%
2.2	$194	7.8%
RS 25	$134	5.4%
Total	**$2,489**	**100.0%**

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13.4.2 Gas Cost Allocation

For Fort Nelson sales customers, the gas cost is currently bundled with the delivery cost. This means that the Gas Cost Recovery Charge is not shown separately on Fort Nelson customers' bills. However, each sales customer (Rate 1, Rate 2.1 and Rate 2.2) has an allocation of FEI's cost of gas included in the charges shown on their bill, including the commodity cost and the midstream cost, which is named the Gas Cost Recovery Charge in the Fort Nelson Tariff. FEI does not allocate any storage or LNG costs to Fort Nelson in its midstream costs, but does include T-North Short-Haul capacity cost on the Spectra pipeline system as a midstream cost.

Customers on RS 25 are required to arrange their own gas supply to be delivered to Fort Nelson's interconnecting point through a shipper agent and so are not charged for either of the commodity or upstream pipeline transportation (midstream) costs.

Details regarding what gas supply resources are included in the commodity and midstream (storage and transport) costs for Fort Nelson are provided in section 13.2.1.2. Below, FEI describes the current and proposed gas cost allocation approach.

13.4.2.1 Current Gas Cost Allocation Methodology

Fort Nelson's current gas cost allocation methodology allocates gas costs (both commodity and midstream) to sales customers using forecast annual consumption. For Rates 3.1, 3.2 and 3.3 which have no customers, the cost of gas in these rates is the Fort Nelson average cost of gas

13.4.3 Revenue to Cost and Margin to Cost Ratios

Consistent with past practice, FEI believes that it is reasonable to apply a "range of reasonableness" of 90 per cent to 110 per cent in considering the revenue to cost ratio results. For further discussion of Revenue to Cost ratios and the range of reasonableness, please see Section 6.5.1 of the Application.

The table below provides the R:C and M:C ratios for each of Fort Nelson's rates based on the Fort Nelson 2018 RRA, plus the adjustment discussed in section 13.4.1.3 and utilizing a 40% load factor for the RS 25 customer. The results are from Fort Nelson's COSA Model before rebalancing and rate design proposals.

Table 13-12: Revenue to Cost and Margin to Cost Ratios

Rate	R:C	M:C
Rate 1 Domestic (Residential) Service	90.5%	88.0%
Rate 2.1 General (Small Commercial) Service	108.3%	110.7%
Rate 2.2 General (Large Commercial) Service	113.2%	118.2%
Rate Schedule 25 General Firm Transportation Service	112.1%	112.1%

Table 13-12 shows that R:C ratios for Rates 1 and 2.1 are within the range of reasonableness and Rate 2.2 and Rate Schedule 25 are above but near the upper bound of the range and that rebalancing may be necessary. FEI's proposal for rebalancing is discussed in Section 13.7.1.4.

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13.5 *FORT NELSON RATE DESIGN*

13.5.1 Introduction

FEI reviewed the rate design for Fort Nelson residential, commercial and industrial customers that take service under Rate 1, Rate 2.1, Rate 2.2 and Rate Schedule 25. FEI discusses unbundling the rates for Fort Nelson customers and also the potential delivery rate structure options for Fort Nelson customers (i.e. flat, declining or inclining block).

As shown in Table 13-1, FEI is proposing to change the classification of Fort Nelson rates as outlined in the Fort Nelson Tariff to be consistent with FEI's rate schedules. FEI is also proposing to change Fort Nelson's current bundled declining block rates to unbundled flat rates for residential, commercial and industrial customers. This means that Fort Nelson residential and commercial customers will see a separate volumetric Commodity Cost Recovery Charge per GJ, Storage and Transport Charge per GJ, Basic Charge per Day and Delivery Charge per GJ in the Fort Nelson Tariff and on their bill. Fort Nelson transportation customers taking service under Rate Schedule 25 will see a separate Basic Charge per Month, Administration Charge per Month, Demand Charge per GJ per Month and Delivery Charge per GJ. The proposed Rate

13.5.5.3.3 LEVEL OF CHARGES FOR SMALL AND LARGE COMMERCIAL CUSTOMERS

There are differences in the cost to serve Fort Nelson small and large commercial customers, and there are differences in the load characteristics that justify having a differentiated daily Basic Charge and Delivery Charge.

The following table compares the small and large commercial customers of Fort Nelson based on the existing volume threshold of 6,000.GJ/year and based on the rate under which they are currently served.

Table 13-20: Comparison between Small & Large Commercial using 6000 GJ Threshold

	Rate 2.1	Rate 2.2
Customer Weighting Factor	1.6	5.7
Use per Customer	425 GJ	8,103 GJ
Load Factor	34.4%	40.5%
Average Customer-related Cost / Customer / Day	$1.403	$3.693
Average Demand-Related & Energy-related Cost / GJ	$3.279	$3.255

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The customer weighting factor is the relative cost of metering/measurement devices and service lines to serve commercial customers compared to residential customers. The higher weighting factor for Rate 2.2 compared to Rate 2.1 coupled with the average customer-related cost of service per customer per month leads to the expectation that large commercial customers should have a higher Basic Charge than small commercial customers.

The higher load factor of Rate 2.2 compared to the Rate 2.1 load factor means that large commercial customers will have a lower average demand-related cost per GJ, which is the result in the table above, this in turn leads to the expectation that the proposed Delivery Charge for large commercial customers will be lower than the Delivery Charge for small commercial customers.

In determining the proposed rates before rebalancing and taking into consideration the 2,000 GJ economic crossover, FEI has sought, as one of its objectives, to align the basic charge of both Rate 2.1 and Rate 2.2 proportionally to the customer classified costs from the COSA model and to limit the bill impact that individual customers in the two rate classes will experience. These observations must be coupled with the objective that at 2,000 GJ/year small and large commercial customers would have the same annual bill.

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Changing the proposed threshold between Rate 2.1 and 2.2 to 2,000 GJ per year will result in 9 customers that would be moved to large commercial from small commercial, as these 9 customers' normalized annual consumption exceeds 2,000 GJ, but is less than the current 6,000 GJ threshold. The number of customers in Rate 2.1 will decrease from 479 customers to 471, with a net reduction of 23 TJ, and the average use per customer will decrease from 426 GJ per year to 384 GJ per year. Rate 2.2 average use per customer of 8,000 GJ per year will decrease to 5,267 GJ per year.

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primary reason for this is that the current rate structure minimum bill effectively has a take or pay of 2 GJ per month including delivery cost of service plus cost of gas. After unbundling the cost of gas, there is a significant decrease for these customers as they will now only have a daily Basic Charge. The average decrease for the approximately 471 small commercial customers would be 2.6% or an average annual decrease of $7.

For the 15 Fort Nelson large commercial customers, the largest percentage decrease is 0.2% (annual bill decrease of $108) and the largest percentage increase is 0.7% (annual bill increase of $80). The average percentage increase for all 15 customers is 0.1% or $0. A similar graph to Figure 13-17 was not produced for Rate 2.2 because of the small number of customers (15).

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13.5.6 Fort Nelson Industrial Customer Rate Design

13.5.6.1 Introduction

Fort Nelson's has the following rates in place to serve industrial customers:

- Rate 3.1 / 3.2 / 3.3 - Industrial Service
- Rate Schedule 25 - General Firm Transportation Service

The delivery charges calculated from the COSA model are slightly higher than the 2018 approved delivery charges shown above due to the revenue deficiency caused by one customer moving from RS 25 to Rate 2.1 as discussed in section 13.4.1.3. This deficiency causes an increase to the 2018 delivery charges of approximately 1%.

Fort Nelson's existing industrial rates consist of a minimum monthly charge and a declining block rate consisting of three consumption blocks. Rates 3.1, 3.2 and 3.3 have a Gas Cost Recovery Charge per GJ and Rate Schedule 25 has a monthly Administration Charge.

Fort Nelson's 2018 bundled rates based on the approved 2018 Revenue Requirement[27] and gas cost of $1.294 per GJ are provided in Table 13-23 below. The rates and blocks are the same for Rate 3.1, 3.2 and 3.3. The annual volume threshold for Rate 3.1 is 96,000 GJ, for Rate 3.2 it is greater than 96,000 GJ and less than 360,000 GJ, and for Rate 3.2 it is a minimum of 360,000 GJ. FEI is proposing to cancel Rate 3.2 and 3.3. There have been no customers served in Rate 3.1, 3.2, or 3.3 since 2001.

[27] Orders G-162-16 and G-173-16.

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13.7 SUMMARY AND CONCLUSIONS

Fort Nelson's rate design proposals described in section 13.5.5.4 above have an impact on the COSA results presented in section 13.4.3. In addition, the COSA results as presented in section 13.4.3 show that Rate 2.2 and RS 25 revenue to cost ratios are outside the range of reasonableness. Therefore, FEI is proposing to rebalance rates to bring Fort Nelson's Rate 2.2 to the boundaries of the range of reasonableness. With this rebalancing, FEI believes that its rate design proposals will result in a reasonable balance of rate design principles, are just and reasonable and should be approved as proposed.

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This section is organized as follows:

- Section 13.7.1 summarizes the impact of Fort Nelson's rate design proposals on the COSA, presents Fort Nelson's final COSA results after taking into account revenue changes due to rate design proposals, shows Fort Nelson's final COSA results after rebalancing to bring rates within the range of reasonableness and presents the associated bill impacts to Fort Nelson customers.
- Section 13.7.2 provides a summary of Fort Nelson's proposed changes to rates, comparing the 2018 rates resulting from the COSA before and after the proposed changes.
- Section 13.7.3 reviews whether or not postage stamping FEI rates to Fort Nelson is suitable.
- Section 13.7.4 concludes this section.

13.7.1 COSA Adjustments from Rate Design Proposals

FEI has included in Fort Nelson's COSA the changes based on the rate design proposals set out above. A summary of the rate design proposals and resulting changes included in the COSA Model are outlined below.

13.7.1.1 Rate 1 – Residential

FEI's proposal for residential rates is to unbundle the delivery cost from gas costs by removing the declining block rate structure and adopting the following charges: Basic Charge per day, Delivery Charge per GJ, Cost of Gas Charge per GJ and Storage and Transport Charge per GJ (plus applicable riders).

The charges that FEI derived are expected to collect the same amount of revenue from Rate 1 as are currently collected, resulting in no changes to the COSA.

13.7.1.2 Rate 2.1 and Rate 2.2 – Commercial

FEI's proposal for Rate 2.1 and Rate 2.2 is as follows:

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1. Unbundle the delivery cost from the cost of gas by removing the declining block rate structure and adopting the following charges: Basic Charge per day, Delivery Charge per GJ, Commodity Cost Recovery Charge per GJ and Storage and Transport Charge per GJ (plus applicable riders).
2. Move the small to large commercial customer threshold to an annual demand of 2,000 GJ.
3. Establish the Daily Basic and volumetric Delivery Charges to have an equal annual bill for Rate 2.1 and Rate 2.2 at the economic crossover point of 2,000 GJ.

By changing the threshold from 6,000 GJ/year to 2,000 GJ/year, nine Rate 2.1 customers consuming more than 2,000 GJ/year would be moved to Rate 2.2 and one Rate 2.2 customer consuming less than 2,000 GJ/year would be moved to Rate 2.1. The movement of these customers is reflected in the COSA by shifting their annual volume, revenue and cost of gas in the COSA Model. The following table illustrates the resulting changes.

Table 13-25: Commercial Customer Shifting in the COSA

	Rate 2.1	Rate 2.2
Customers	-8	+8
Volume (TJ)	-23.3	+23.3
Revenue ($000)	-126.7	+126.7
Cost of Gas ($000)	-30.1	+30.1

The shifting of customers between Rate 2.1 and Rate 2.2 is revenue neutral between the two commercial rates. When included in the COSA the R:C ratio for Rate 2.1 decreases by 1.2 % and the R:C for Rate 2.2 increases by 2.7 %.

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13.7.1.3 Rate Schedule 25 and Rate 3.1 – Industrial

FEI's proposal for RS 25 and Rate 3.1 is to eliminate the block rate structure and adopt FEI's rate structure as follows:

Rate 25

1. Remove the declining block rate structure.
2. Adopt the following charges: Basic Charge per Month, Administrative Charge per Month, Demand Charge per Month per GJ of Daily Demand, and Delivery Charger per GJ (plus applicable riders).

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Rate 3.1

1. Remove the declining block rate structure.
2. Adopt the following charges: Basic Charge per Month, Demand Charge per Month per GJ of Daily Demand, Delivery Charger per GJ, Commodity Cost Recovery Charge per GJ, Storage and Transport Charge per GJ (plus applicable riders).

Neither RS 25 nor Rate 3.1 would contribute to the RSAM due to variances in the forecast use rate versus actual use rate. The industrial customers would continue to contribute to the recovery / refund of the December 31, 2017 RSAM balance in 2018 and 2019, On January 1, 2020 the RSAM Rate Rider would be eliminated for industrial customers.

By adopting FEI's Rate Schedule 5 and 25 rate structure and setting the charges to collect the existing RS 25 revenue there is no impact to the COSA.

In addition, FEI proposes to decrease the Administration Charge per Month for RS 25 from $202.00 to $39.00 as set out in Appendix 11-3, Section 1.4 and Appendix 11-4. The reduction in the Administration Charge decreases the revenue collected from RS 25 by $1,956 annually. When reflected in the COSA, this change causes an annual bill increase for Rate 1, Rate 2.1 and Rate 2.2 of 0.08%, while RS 25 receives an annual bill decrease of 1.2%.

13.7.1.4 Final COSA Results and Rebalancing

The table below presents the R:C and M:C ratios before rebalancing and after the rate design proposal changes discussed above. As discussed in section 6.5.1 of the Application, FEI targets a range of reasonableness between 90% – 110%.

Table 13-26: Revenue to Cost and Margin to Cost Ratios before rebalancing

Rate Schedule	Initial COSA		Revenue Shift ($000)	Approximate Annual Bill Change	COSA after Rate Design Proposals	
	R:C	M:C			R:C	M:C
Rate 1 *Domestic (Residential) Service*	90.5%	88.0%	0.8	0.1%	90.9%	88.4%
Rate 2.1 *General (Small Commercial) Service*	108.3%	110.7%	(126.0)	0.1%	107.2%	109.4%
Rate 2.2 *General (Large Commercial) Service*	113.2%	118.2%	127.0	0.1%	114.5%	118.4%
Rate Schedule 25 *General Firm Transportation Service*	112.1%	112.1%	(1.8)	-1.2%	111.0%	111.0%

The table above shows that Rate 2.2 and RS 25 are outside the range of reasonableness. FEI's rebalancing proposals include the following adjustments to revenue responsibility:

- Decrease Rate 2.2 revenue by $16 thousand which will reduce the R:C ratio of Rate 2.2 to within the range of reasonableness.

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- Increase Rate 1 revenue by $16 thousand to offset the decrease in revenue from Rate 2.2.

The following table presents the rebalancing amounts and Revenue to Cost (and Margin to Cost) ratios after rebalancing.

Table 13-27: Revenue to Cost and Margin to Cost Ratios after rebalancing

Rate Schedule	COSA after Rate Design Proposals		Rebalance Amount ($000)	Approximate Annual Bill Change	COSA after Rate Design Proposals and Rebalancing	
	R:C	M:C			R:C	M:C
Rate 1 *Domestic (Residential) Service*	90.9%	88.4%	16.0	1.9%	91.9%	89.7%
Rate 2.1 *General (Small Commercial) Service*	107.2%	109.4%			107.2%	109.4%
Rate 2.2 *General (Large Commercial) Service*	114.5%	118.4%	(16.0)	-3.2%	109.9%	112.6%
Rate Schedule 25 *General Firm Transportation Service*	111.0%	111.0%			111.0%	111.0%

Fort Nelson rates must be adjusted to account for the shift in revenue responsibility. For Rate 1, FEI will increase the Basic Charge to $0.3003 per day so that the $16 thousand in revenue shift is recovered from all residential customers equally. FEI chose to collect all of the revenue shift through the Rate 1 Basic Charge because the lowest consuming customers receive the greatest rate reductions to their annual bills through the unbundling of Fort Nelson residential rates. Before rebalancing, a customer with annual consumption of 34 GJ (one quarter of the average) will experience a 7% decrease to their annual bill. By applying the adjustment only to the Basic Charge, FEI moderates the decrease to lower consuming customers making the adjustments more equitable between low and high consumers in Rate 1. This also results in Fort Nelson collecting more of its customer-related charges through the Basic Charge. Fort Nelson will collect approximately 19% of its revenue from Rate 1 through the Basic Charge; the customer-related costs in the COSA equal 62%.

The following figure illustrates Rate 1 customer bill impacts from all changes including unbundling and rebalancing. Each point on the graph is an individual customer.

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Deleted: so that the annual bill percentage increase equals 10%[28]. This increase is proposed in consideration of the overall bill impact that Fort Nelson residential customers will experience in 2018. Fort Nelson's 2017-2018 Revenue Requirement delivery rate increase of 6.66% will be effective January 1, 2018. The rate design proposals and rebalancing in this Application are proposed to be effective June 1, 2018. When the revenue requirement increase and rate design increases are blended over 2018, Rate 1 customers will experience, on average, a 9.7% annual bill increase.

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Decrease Rate 2.1 revenue by $71 thousand so that the R:C ratio equals 110%.

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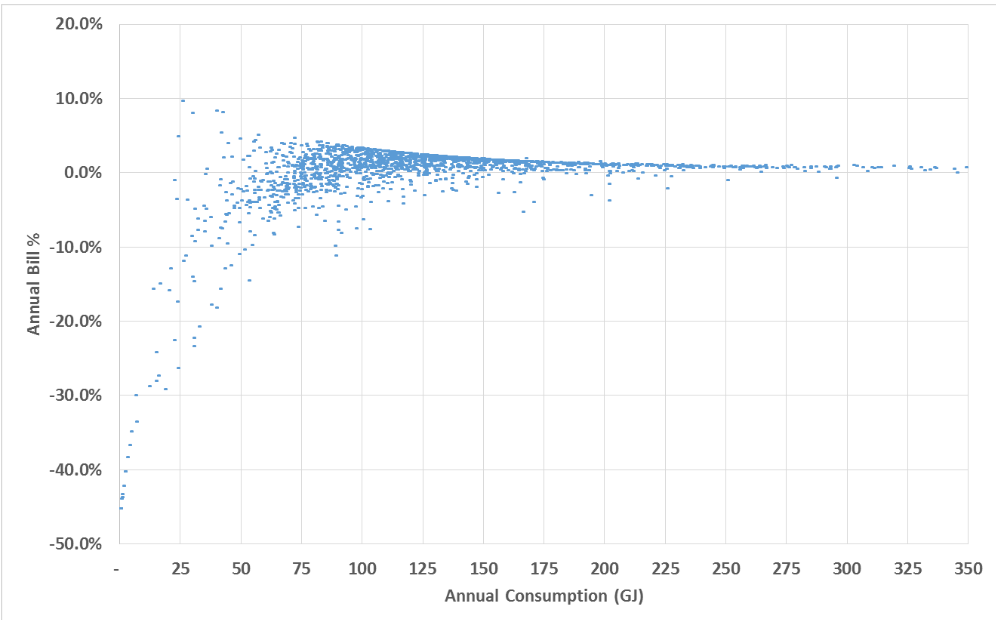
Figure 13-18: Rate 1 Bill Impacts from all Rate Design Proposals



For Rate 2.2, FEI adjusted rates to account for the decrease in revenue responsibility of $16 thousand, maintain an economic break even threshold of 2,000 GJ /year as discussed in section 13.5.5.4, align the basic charge of both Rate 2.1 and Rate 2.2 proportionally to the customer classified costs from the COSA model and limit any individual customer's annual bill impact.

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The following table shows the rates for the daily Basic Charge and the volumetric Delivery Charge for Rate 2.1 and 2.2.

Table 13-28: Rate 2.1 and 2.2 Charges after all Rate Design Proposals

	Rate 2.1	Rate 2.2
Daily Basic Charge ($/Day)	1.2008	3.1581
Delivery Charge ($/GJ)	3.989	3.631

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The following figure compares the effective rates per GJ for Rate 2.1 and 2.2 after unbundling and removing declining block, set (including rebalancing) to attain a 2,000 GJ/year breakeven point and minimizing individual customer bill impacts.

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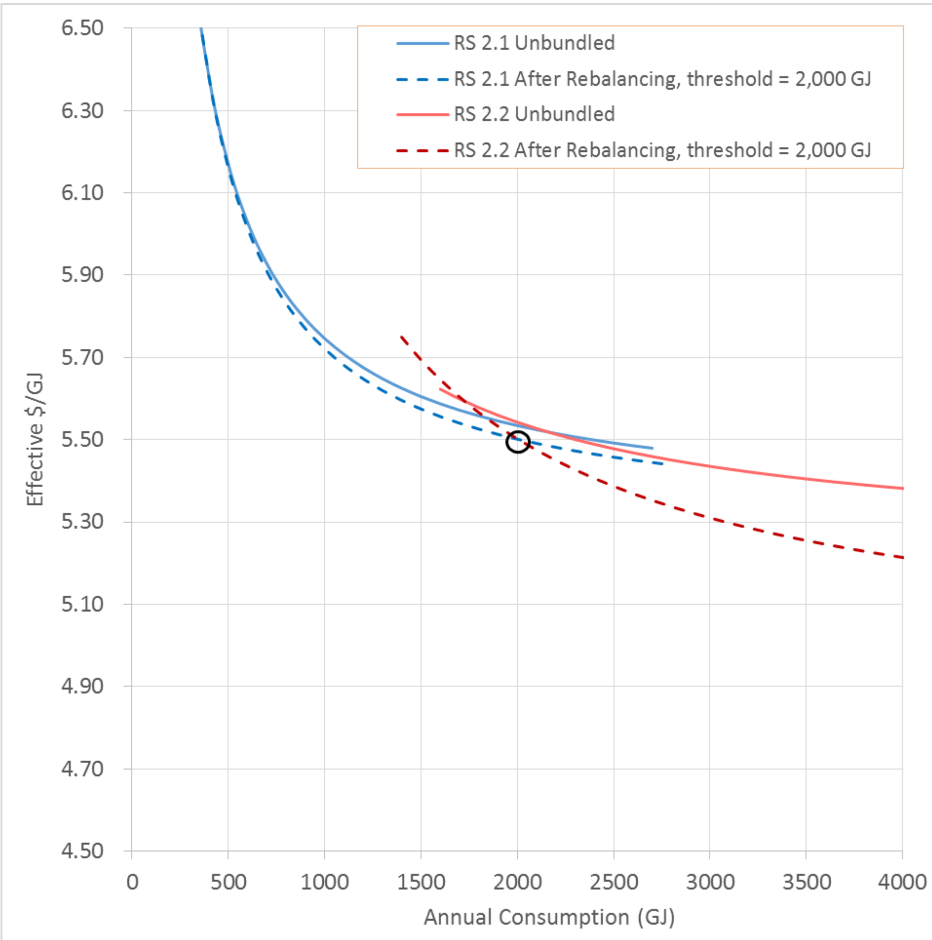
Figure 13-19: Rate 2.1 and 2.2 Effective $/GJ



The two solid lines are the effective delivery rates ($/GJ) after Rate 2.1 and Rate 2.2 are unbundled, where the charges are set to collect the existing revenue responsibility of each Rate and so that the bill impact to any one customer is minimized. The two dotted lines are the effective delivery rates ($/GJ) after Rate 2.1 and Rate 2.2 are unbundled, Rate 2.2 is rebalanced, the break even threshold is set to 2,000 GJ per year, the bill impact to any one customer is limited and charges are set so that the basic charges of Rate 2.1 and Rate 2.2 are proportionately aligned to the customer classified costs from the COSA.

The following two figures show Rate 2.1 and Rate 2.2 customer bill impacts from all changes including unbundling, setting the break even to 2,000 GJ per year and rebalancing.

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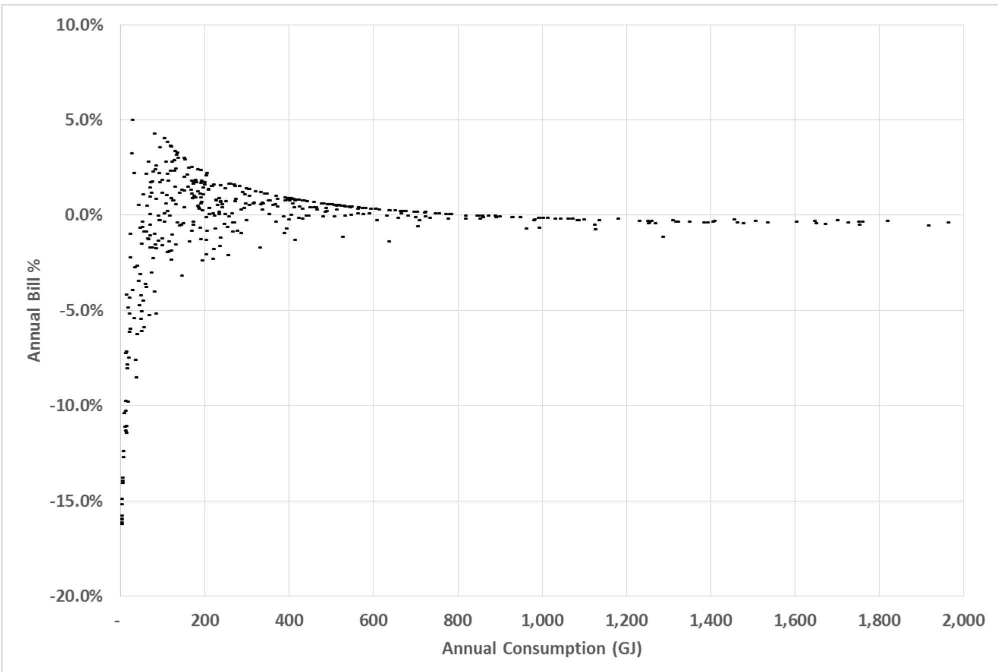
Evidentiary Update, dated April 7, 2017

Figure 13-20: Rate 2.1 Bill Impacts from all Rate Design Proposals



The figure above shows Rate 2.1 customers' bill impacts after unbundling and rebalancing, setting the break even threshold between Rate 2.1 and Rate 2.2 to 2,000 GJ/year and limiting any one customer's bill impact. Each point is an individual customer. Rate 2.1 customers experience between a 5% increase and 15% decrease in their annual bills.

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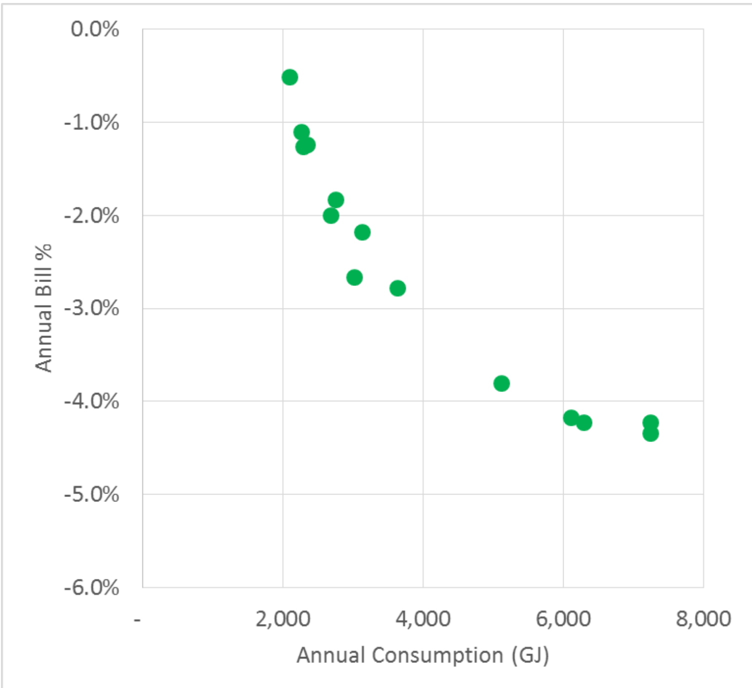
Figure 13-21: Rate 2.2 Bill Impacts from all Rate Design Proposals



The figure above shows Rate 2.2 customers' bill impacts after unbundling and rebalancing, setting the break even threshold between Rate 2.1 and Rate 2.2 to 2,000 GJ/year and limiting any one customer's bill impact. Each point is an individual customer. Rate 2.2 customers experience about a 0.5% or greater decrease in their annual bills.

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Detailed Final COSA schedules are included as Appendix 13-5.

13.7.2 Summary of Rate Proposals

Table 13-29 below presents a summary of FEI's rate design proposals for Fort Nelson.

Evidentiary Update, dated April 7, 2017

Table 13-29: Fort Nelson Rate Proposal Summary

Rate Component	Rate 1	Rate 2.1	Rate 2.2	Rate 3.1	RS 25
Existing COSA Rates[29]					
Minimum daily Charge incl. 1st 2 GJ/month	$0.5483	$1.4337	$1.4337		
Administration Charge (/month)					$202
Next 28 GJ/month	$4.885				
Excess over 30 GJ/month	$4.782				
Next 298 GJ/ month		$5.336	$5.336		
Excess over 300 GJ/month		$5.210	$5.210		
Delivery Charge First 20 GJ/month				$4.522	$4.522
Delivery Charge Next 260 GJ/month				$4.201	$4.201
Excess over 280 GJ/month				$3.450	$3.450
Minimum Delivery Charge/month				$1,826	$1,826
Total Annual Bill:[30]	**$742**	**$2,433**	**$28,546**	**n/a**[31]	**$148,664**
Proposed Rates					
Basic Charge/Day	$0.3003	$1.2008	$3.1581		
Basic Charge (/Month)				$600.00	$600.00
Administration Charge (/Month)					$39.00
Demand Charge (/GJ/Month)				$28.727	$28.727
Delivery Charge ($/GJ)	$3.512	$3.989	$3.631	$1.000	$1.000
Commodity Cost Recovery Charge ($/GJ)	$1.275	$1.275	$1.275	$1.275	
Storage and Transport Charge ($/GJ)	$0.019	$0.020	$0.017	$0.019	
Total Annual Bill:	**$758**	**$2,457**	**$27,405**	**n/a**[32]	**$148,243**

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13.7.3 Postage Stamp Rates

In this section FEI shows the rate impacts to Fort Nelson customers if delivery rates and gas costs were to be postage stamped with the rest of FEI's service areas. Due to the potential rate impacts from postage stamp rates, and in consideration of the impacts from the proposed rebalancing and already approved rate changes for 2017 and 2018, FEI is not proposing to postage stamp Fort Nelson rates at this time.

[29] The COSA rates shown are 2018 approved rates, $1.294 Gas Cost Recovery Charge, and test year adjustments discussed above in Section 13.4.1.3.
[30] Based on an average annual demand per customer of 135 GJ for Rate 1, 382 GJ for Rate 2.1 and 5,332 GJ for Rate 2.2 and 39,500 GJ for RS 25.
[31] There are no customers taking service under Rate 3.1, therefore Total Annual Bill shows as n/a.
[32] Ibid.

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Table 13-30 below shows a comparison between FEI and Fort Nelson effective delivery rates for residential, commercial and industrial customers.

Table 13-30: Comparison between FEI and Fort Nelson Delivery Rates

Fort Nelson Rate Design
Postage Stamp Comparison - *Effective Delivery Rate*

	FEI Proposed Rates		Fort Nelson Proposed Rates		Difference	FN/FEI
Rate Schedule 1 (1b)						
Basic Charge/Day	$	0.4085	$	0.3003	$	(0.1082)	
Delivery Charge/GJ	$	4.746	$	3.512	$	(1.234)	
Annual Usage (GJ)		132.53		132.53			
Effective Rate/GJ	**$**	**5.87**	**$**	**4.34**	**$**	**(1.53)**	-26%
Rate Schedule 2 (2.1)							
Basic Charge/Day	$	0.9485	$	1.2008	$	0.2523	
Delivery Charge/GJ	$	3.664	$	3.989	$	0.325	
Annual Usage (GJ)		382.2		382.2			
Effective Rate/GJ	**$**	**4.57**	**$**	**5.14**	**$**	**0.57**	12%
Rate Schedule 3 (2.2)							
Basic Charge/Day	$	4.7895	$	3.1581	$	(1.6314)	
Delivery Charge/GJ	$	3.190	$	3.631	$	0.441	
Annual Usage (GJ)		5,332.1		5,332.1			
Effective Rate/GJ	**$**	**3.52**	**$**	**3.85**	**$**	**0.33**	9%
Rate Schedule 25							
Admin Charge/Mth	$	39	$	39	$	-	
Basic Charge/Mth	$	587	$	600	$	13	
Demand Charge/GJ/Mth	$	24.596	$	28.727	$	4.131	
Delivery Charge/GJ	$	0.887	$	1.000	$	0.113	
Contract Demand		292.7		292.7			
Annual Usage (GJ)		39,500.0		39,500.0			
Effective Rate/GJ	**$**	**3.26**	**$**	**3.75**	**$**	**0.48**	15%

As shown above, the proposed Fort Nelson residential customers' effective delivery rate is 26% lower than the delivery rates proposed for FEI residential customers. The effective delivery rate of commercial customers served under Rate Schedule 2 (formerly Rate 2.1) is 12% higher under Fort Nelson proposed changes compared to FEI RS 2 customers. With the proposed changes discussed above, Rate Schedule 3 (formerly Rate 2.2) customers' effective delivery rate is 9% higher than FEI proposed rates for RS 3 customers, while Rate Schedule 25 Fort Nelson customers' effective delivery rate will be 15% higher than FEI's RS 25 rates.

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The following table compares the gas cost recovery for Fort Nelson and FEI for residential, small commercial and large commercial as of July 1, 2016 and January 1, 2017.

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Table 13-31: Comparison of Gas Cost Recovery FEI and Fort Nelson Residential and Commercial Customers

Line				
As of July 1, 2016				
	Fort Nelson	**Rate 1**	**Rate 2.1**	**Rate 2.2**
1	**Total:**	**$1.294**	**$1.294**	**$1.294**
	FEI	**RS 1**	**RS 2**	**RS 3**
2	Commodity Cost Recovery rates	$1.719	$1.719	$1.719
3	Storage & Transport rates	$1.117	$1.133	$0.940
4	**Total:**	**$2.836**	**$2.852**	**$2.659**
5	Variance (Line 4 – Line 1)	$1.542	$1.558	$1.365
As of January 1, 2017				
	Fort Nelson	**Rate 1**	**Rate 2.1**	**Rate 2.2**
6	**Total:**	**$2.086**	**$2.086**	**$2.086**
	FEI	**RS 1**	**RS 2**	**RS 3**
7	Commodity Cost Recovery rates	$2.050	$2.050	$2.050
8	Storage & Transport rates	$1.009	$1.020	$0.851
9	**Total:**	**$3.059**	**$3.070**	**$2.901**
10	Variance (Line 9 – Line 6)	$0.973	$0.984	$0.815

Whether looking at the variance of the gas cost as of July 1, 2016 or January 1, 2017, there is a substantive difference in the gas costs for Fort Nelson customers compared to the postage stamp rates for FEI's other customers. The primary reason for this difference is that the transport costs for delivery to Fort Nelson on Spectra's T-North Short Haul is only approximately two cents (see Table 13-11, Line 13).

Table 13-32 below shows the result if the effective delivery rate difference for residential and commercial classes in Table 13-30 is added to the gas cost variance in Table 13-31 (based on January 1, 2017 gas costs embedded in customers' bundled rates). The table shows that residential and commercial customers have lower rates in Fort Nelson than in FEI's other service areas.

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Table 13-32: Summation of Effective Delivery Variance and Cost of Gas Variance $ / GJ

	Residential	Small Commercial	Large Commercial
Effective Delivery Rate Difference	$1.53	$(0.57)	$(0.33)
Total Cost of Gas Variance	$0.97	$0.98	$0.82
Total Variance	$2.50	$0.41	$0.49
Total Variance %	-28%	-5%	-8%

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In addition to the rate differences summarized in Table 13-32 above, and in consideration of the proposed rebalancing discussed in section 13.7.1.4 of the Application and the delivery rate changes approved for 2017 and 2018 by Order G-162-16 related to Fort Nelson's revenue requirements and rates application, FEI is not proposing to postage stamp rates for Fort Nelson customers at this time.

13.7.4 Conclusion

Based on the analysis and considerations set out above in this section, FEI believes that its rate design proposals for Fort Nelson customers will result in a reasonable balance of rate design principles, are just and reasonable and should be approved as proposed.

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- To set a Storage and Transport Charge based on classifying midstream costs as demand-related and allocating those costs to all sales customers based on their load factor adjusted volume, as discussed in section 13.4.2.

Residential Rates

6. Approval of the following for Rate Schedule 1 (formerly Rate 1):

- To set the Basic Charge per Day at $0.3003 and the Delivery Charge at $3.512 per GJ as a result of unbundling the rate structure in a way that minimizes the bill increase for any individual customer as discussed in sections 13.5.4 and 13.7.

Commercial Rates

7. Approval to change the annual volume threshold between small and large commercial customers from 6,000 GJ to 2,000 GJ and to set the Basic, Delivery, Commodity, and Storage and Transport Charges for commercial customers to align with the 2,000 GJ threshold for FEI customers as discussed in sections 13.5.5 and 13.7, as follows:

- For Rate Schedule 2 (formerly Rate 2.1 – customers whose normal annual consumption is less than 2,000 GJ):
    - To set the Basic Charge per Day at $1.2008 and Delivery Charge at $3.989 per GJ as a result of unbundling the rate structure as discussed in sections 13.5.5 and 13.7.
- For Rate Schedule 3 (formerly Rate 2.2, and Rate 2.1 customers whose normal annual consumption is greater than 2,000 GJ):
    - To set the Basic Charge per Day at $3.1581 and Delivery Charge at $3.631 per GJ as a result of unbundling the rate structure as discussed in sections 13.5.5 and 13.7.
- For Rate Schedule 6 (formerly Rate 2.3):
    - To set the Basic Charge per Day and Delivery Charge equal to FEI's approved January 1, 2018 RS 6 rates, as a result of unbundling the rate structure.

Industrial Rates

8. Approval of the following for Rate Schedule 5 (formerly Rate 3.1):

- To set the Daily Demand equal to 1.10 multiplied by the greater of:
    i. The customer's highest average daily consumption of any month during the winter period (November 1 to March 31); or

Table 13-2: Action Items, Key Discussion Topics and FEI Response

Action Items	Action / Response	Reference
Physical flow and commercial transactions contributing to gas costs	FEI has provided a background on gas supply arrangement to understand the physical flow and commercial transactions contributing to the gas costs.	Section 13.2.1.2
Estimated costs to unbundle Fort Nelson bills	Costs are estimated at approximately $70 thousand to unbundle and restructure the rates for Fort Nelson	Section 13.5.2
Efficiencies gained from unbundling	Fort Nelson customers sum to approximately 0.2% of FEI's total customers. Unbundling Gas and Delivery Charges for Fort Nelson bills will simplify the discussion for FEI's Customer Service Representatives but will not result in a reduction of employees.	
Key Discussion Topics	**Action / Response**	**Reference**
Bundled or Unbundled Rates	FEI is proposing to unbundle the rates which will make rate changes more transparent.	Section 13.5.2
Gas Cost Allocation Methodology	FEI is proposing to allocate midstream costs based on a load factor volume adjusted basis and allocate commodity costs based on sales volumes.	Section 13.4.2
Customer Segmentation – Commercial Customers	FEI is proposing to change the customer segmentation threshold between small and large commercial customers from 6,000 GJ/year to 2,000 GJ/year.	Section 13.5.5
Revenue to Cost Ratio and Rebalancing	FEI is proposing to rebalance Rate 2.2 to bring the R:C ratio within the range of reasonableness. The revenue responsibility would be shifted to Rate 1 with an average bill impact of approximately 1.4% for Rate 1 customers. RS 25 R:C ratio after rate design proposals is 111%. FEI is proposing not to do any rebalancing of RS 25.	Section 13.7.1.4
Common Rates	FEI is not proposing the adoption of postage stamp rates for Fort Nelson at this time.	Section 13.7.3

FEI received feedback from stakeholders and customers regarding FEI's explanation of the context of Fort Nelson's rate design provided in the workshop. Specific feedback on the key discussion topics and issues mentioned above is included in the relevant sections below as set out in the table above.

13.3.2 Residential Customer Survey

As explained in Section 4.6, FEI retained the services of Sentis to conduct an online survey to measure residential customers' knowledge of Fort Nelson's existing rate structure and bill components and to better understand customers' preference regarding various rate design considerations. The detailed version of this study can be found in Appendix 4-5 to this Application. A brief summary of the survey results is presented below.

Table 13-9: Delivery Cost of Service Classification Summary

Classification	($000s)	%of total
Energy	$19	0.8%
Demand	$1,363	54.8%
Customer	$1,107	44.4%
Total	**$2,489**	**100.0%**

13.4.1.5.3 COST ALLOCATION SUMMARY

Table 13-10 summarizes the results of the delivery cost of service allocation to rates from the Fort Nelson COSA Model.

Table 13-10: Delivery Cost of Service Allocation to Rates Summary

Rate	($000s)	% of total
1	$1,247	50.1%
2.1	$914	36.7%
2.2	$194	7.8%
RS 25	$134	5.4%
Total	**$2,489**	**100.0%**

13.4.2 Gas Cost Allocation

For Fort Nelson sales customers, the gas cost is currently bundled with the delivery cost. This means that the Gas Cost Recovery Charge is not shown separately on Fort Nelson customers' bills. However, each sales customer (Rate 1, Rate 2.1 and Rate 2.2) has an allocation of FEI's cost of gas included in the charges shown on their bill, including the commodity cost and the midstream cost, which is named the Gas Cost Recovery Charge in the Fort Nelson Tariff. FEI does not allocate any storage or LNG costs to Fort Nelson in its midstream costs, but does include T-North Short-Haul capacity cost on the Spectra pipeline system as a midstream cost.

Customers on RS 25 are required to arrange their own gas supply to be delivered to Fort Nelson's interconnecting point through a shipper agent and so are not charged for either of the commodity or upstream pipeline transportation (midstream) costs.

Details regarding what gas supply resources are included in the commodity and midstream (storage and transport) costs for Fort Nelson are provided in section 13.2.1.2. Below, FEI describes the current and proposed gas cost allocation approach.

13.4.2.1 Current Gas Cost Allocation Methodology

Fort Nelson's current gas cost allocation methodology allocates gas costs (both commodity and midstream) to sales customers using forecast annual consumption. For Rates 3.1, 3.2 and 3.3 which have no customers, the cost of gas in these rates is the Fort Nelson average cost of gas

13.4.3 Revenue to Cost and Margin to Cost Ratios

Consistent with past practice, FEI believes that it is reasonable to apply a “range of reasonableness” of 90 per cent to 110 per cent in considering the revenue to cost ratio results. For further discussion of Revenue to Cost ratios and the range of reasonableness, please see Section 6.5.1 of the Application.

The table below provides the R:C and M:C ratios for each of Fort Nelson’s rates based on the Fort Nelson 2018 RRA, plus the adjustment discussed in section 13.4.1.3 and utilizing a 40% load factor for the RS 25 customer. The results are from Fort Nelson’s COSA Model before rebalancing and rate design proposals.

Table 13-12: Revenue to Cost and Margin to Cost Ratios

Rate	R:C	M:C
Rate 1 Domestic (Residential) Service	90.5%	88.0%
Rate 2.1 General (Small Commercial) Service	108.3%	110.7%
Rate 2.2 General (Large Commercial) Service	113.2%	118.2%
Rate Schedule 25 General Firm Transportation Service	112.1%	112.1%

Table 13-12 shows that R:C ratios for Rates 1 and 2.1 are within the range of reasonableness and Rate 2.2 and Rate Schedule 25 are above but near the upper bound of the range and that rebalancing may be necessary. FEI’s proposal for rebalancing is discussed in Section 13.7.1.4.

13.5 *FORT NELSON RATE DESIGN*

13.5.1 Introduction

FEI reviewed the rate design for Fort Nelson residential, commercial and industrial customers that take service under Rate 1, Rate 2.1, Rate 2.2 and Rate Schedule 25. FEI discusses unbundling the rates for Fort Nelson customers and also the potential delivery rate structure options for Fort Nelson customers (i.e. flat, declining or inclining block).

As shown in Table 13-1, FEI is proposing to change the classification of Fort Nelson rates as outlined in the Fort Nelson Tariff to be consistent with FEI’s rate schedules. FEI is also proposing to change Fort Nelson’s current bundled declining block rates to unbundled flat rates for residential, commercial and industrial customers. This means that Fort Nelson residential and commercial customers will see a separate volumetric Commodity Cost Recovery Charge per GJ, Storage and Transport Charge per GJ, Basic Charge per Day and Delivery Charge per GJ in the Fort Nelson Tariff and on their bill. Fort Nelson transportation customers taking service under Rate Schedule 25 will see a separate Basic Charge per Month, Administration Charge per Month, Demand Charge per GJ per Month and Delivery Charge per GJ. The proposed Rate

13.5.5.3.3 LEVEL OF CHARGES FOR SMALL AND LARGE COMMERCIAL CUSTOMERS

There are differences in the cost to serve Fort Nelson small and large commercial customers, and there are differences in the load characteristics that justify having a differentiated daily Basic Charge and Delivery Charge.

The following table compares the small and large commercial customers of Fort Nelson based on the existing volume threshold of 6,000.GJ/year and based on the rate under which they are currently served.

Table 13-20: Comparison between Small & Large Commercial using 6000 GJ Threshold

	Rate 2.1	Rate 2.2
Customer Weighting Factor	1.6	5.7
Use per Customer	425 GJ	8,103 GJ
Load Factor	34.4%	40.5%
Average Customer-related Cost / Customer / Day	$1.403	$3.693
Average Demand-Related & Energy-related Cost / GJ	$3.279	$3.255

The customer weighting factor is the relative cost of metering/measurement devices and service lines to serve commercial customers compared to residential customers. The higher weighting factor for Rate 2.2 compared to Rate 2.1 coupled with the average customer-related cost of service per customer per month leads to the expectation that large commercial customers should have a higher Basic Charge than small commercial customers.

The higher load factor of Rate 2.2 compared to the Rate 2.1 load factor means that large commercial customers will have a lower average demand-related cost per GJ, which is the result in the table above, this in turn leads to the expectation that the proposed Delivery Charge for large commercial customers will be lower than the Delivery Charge for small commercial customers.

In determining the proposed rates before rebalancing and taking into consideration the 2,000 GJ economic crossover, FEI has sought, as one of its objectives, to align the basic charge of both Rate 2.1 and Rate 2.2 proportionally to the customer classified costs from the COSA model and to limit the bill impact that individual customers in the two rate classes will experience. These observations must be coupled with the objective that at 2,000 GJ/year small and large commercial customers would have the same annual bill.

Changing the proposed threshold between Rate 2.1 and 2.2 to 2,000 GJ per year will result in 9 customers that would be moved to large commercial from small commercial, as these 9 customers' normalized annual consumption exceeds 2,000 GJ, but is less than the current 6,000 GJ threshold. The number of customers in Rate 2.1 will decrease from 479 customers to 471, with a net reduction of 23 TJ, and the average use per customer will decrease from 426 GJ per year to 384 GJ per year. Rate 2.2 average use per customer of 8,000 GJ per year will decrease to 5,267 GJ per year.

primary reason for this is that the current rate structure minimum bill effectively has a take or pay of 2 GJ per month including delivery cost of service plus cost of gas. After unbundling the cost of gas, there is a significant decrease for these customers as they will now only have a daily Basic Charge. The average decrease for the approximately 471 small commercial customers would be 2.6% or an average annual decrease of $7.

For the 15 Fort Nelson large commercial customers, the largest percentage decrease is 0.2% (annual bill decrease of $108) and the largest percentage increase is 0.7% (annual bill increase of $80). The average percentage increase for all 15 customers is 0.1% or $0. A similar graph to Figure 13-17 was not produced for Rate 2.2 because of the small number of customers (15).

13.5.6 Fort Nelson Industrial Customer Rate Design

13.5.6.1 Introduction

Fort Nelson's has the following rates in place to serve industrial customers:

- Rate 3.1 / 3.2 / 3.3 - Industrial Service
- Rate Schedule 25 - General Firm Transportation Service

The delivery charges calculated from the COSA model are slightly higher than the 2018 approved delivery charges shown above due to the revenue deficiency caused by one customer moving from RS 25 to Rate 2.1 as discussed in section 13.4.1.3. This deficiency causes an increase to the 2018 delivery charges of approximately 1%.

Fort Nelson's existing industrial rates consist of a minimum monthly charge and a declining block rate consisting of three consumption blocks. Rates 3.1, 3.2 and 3.3 have a Gas Cost Recovery Charge per GJ and Rate Schedule 25 has a monthly Administration Charge.

Fort Nelson's 2018 bundled rates based on the approved 2018 Revenue Requirement[26] and gas cost of $1.294 per GJ are provided in Table 13-23 below. The rates and blocks are the same for Rate 3.1, 3.2 and 3.3. The annual volume threshold for Rate 3.1 is 96,000 GJ, for Rate 3.2 it is greater than 96,000 GJ and less than 360,000 GJ, and for Rate 3.2 it is a minimum of 360,000 GJ. FEI is proposing to cancel Rate 3.2 and 3.3. There have been no customers served in Rate 3.1, 3.2, or 3.3 since 2001.

[26] Orders G-162-16 and G-173-16.

Rate Schedule 1: Residential Service

Fort Nelson RS 1, consistent with FEI RS 1, is applicable for all Residential Customers and now includes a common table of charges. FEI has removed details regarding an optional rate previously available for customers whose primary heating was from equipment installed with the assistance of a promotional incentive which is no longer applicable.

Rate Schedule 2: Small Commercial Service

Fort Nelson RS 2, consistent with FEI RS 2, is applicable for small Commercial Customers with normalized annual consumption of less than 2,000 GJs. Fort Nelson RS 2 now includes a common table of charges for applicable small Commercial Customers. Previously, two rates existed for Commercial Customers, (formerly named General Service Customers), depending on their annual consumption: those who consumed less than 6,000 GJs or those who consumed 6,000 GJs or higher during the previous gas year (which runs from their first bill in November to their final bill the following October each year).

Rate Schedule 3: Large Commercial Service

Fort Nelson RS 3 is a new rate schedule for large Commercial Customers, which is consistent with FEI RS 3. Fort Nelson RS 3 is applicable for large Commercial Customers with normalized annual consumption of more than 2,000 GJs. Fort Nelson RS 3 also has a common table of charges for applicable large Commercial Customers.

Rate Schedule 5: General Firm Service

Fort Nelson RS 5 is a new rate schedule for Fort Nelson General Firm Service customers, which is substantially consistent with FEI RS 5.

Rate Schedule 6: Natural Gas Vehicle Service

Fort Nelson RS 6 is a new rate schedule for Fort Nelson Natural Gas Vehicle Service customers, which is substantially consistent with FEI RS 6.

Rate Schedule 25: General Firm Transportation Service

Fort Nelson RS 25 has been revised to mirror the terms and conditions of FEI RS 25. Similarly, the form of Transportation Agreement and Schedule A in Fort Nelson RS 25 (Shipper Agent Agreement) has been revised to mirror the proposed amendments made to FEI RS 25. In addition, an Appendix A (Notice of Appointment of Shipper Agent) has been added to the Transportation Agreement.

For additional information regarding the amendments made to the existing terms and conditions for FEI RS 25, please refer to Section 9.5 of the Application and Appendix 11-3 for a blacklined version.

FEI proposes that the changes to the Fort Nelson Tariff be approved effective June 1, 2018.

1. Unbundle the delivery cost from the cost of gas by removing the declining block rate structure and adopting the following charges: Basic Charge per day, Delivery Charge per GJ, Commodity Cost Recovery Charge per GJ and Storage and Transport Charge per GJ (plus applicable riders).
2. Move the small to large commercial customer threshold to an annual demand of 2,000 GJ.
3. Establish the Daily Basic and volumetric Delivery Charges to have an equal annual bill for Rate 2.1 and Rate 2.2 at the economic crossover point of 2,000 GJ.

By changing the threshold from 6,000 GJ/year to 2,000 GJ/year, nine Rate 2.1 customers consuming more than 2,000 GJ/year would be moved to Rate 2.2 and one Rate 2.2 customer consuming less than 2,000 GJ/year would be moved to Rate 2.1. The movement of these customers is reflected in the COSA by shifting their annual volume, revenue and cost of gas in the COSA Model. The following table illustrates the resulting changes.

Table 13-25: Commercial Customer Shifting in the COSA

	Rate 2.1	Rate 2.2
Customers	-8	+8
Volume (TJ)	-23.3	+23.3
Revenue ($000)	-126.7	+126.7
Cost of Gas ($000)	-30.1	+30.1

The shifting of customers between Rate 2.1 and Rate 2.2 is revenue neutral between the two commercial rates. When included in the COSA the R:C ratio for Rate 2.1 decreases by 1.2 % and the R:C for Rate 2.2 increases by 2.7 %.

13.7.1.3 Rate Schedule 25 and Rate 3.1 – Industrial

FEI's proposal for RS 25 and Rate 3.1 is to eliminate the block rate structure and adopt FEI's rate structure as follows:

Rate 25

1. Remove the declining block rate structure.
2. Adopt the following charges: Basic Charge per Month, Administrative Charge per Month, Demand Charge per Month per GJ of Daily Demand, and Delivery Charger per GJ (plus applicable riders).

Rate 3.1

1. Remove the declining block rate structure.
2. Adopt the following charges: Basic Charge per Month, Demand Charge per Month per GJ of Daily Demand, Delivery Charger per GJ, Commodity Cost Recovery Charge per GJ, Storage and Transport Charge per GJ (plus applicable riders).

Neither RS 25 nor Rate 3.1 would contribute to the RSAM due to variances in the forecast use rate versus actual use rate. The industrial customers would continue to contribute to the recovery / refund of the December 31, 2017 RSAM balance in 2018 and 2019, On January 1, 2020 the RSAM Rate Rider would be eliminated for industrial customers.

By adopting FEI's Rate Schedule 5 and 25 rate structure and setting the charges to collect the existing RS 25 revenue there is no impact to the COSA.

In addition, FEI proposes to decrease the Administration Charge per Month for RS 25 from $202.00 to $39.00 as set out in Appendix 11-3, Section 1.4 and Appendix 11-4. The reduction in the Administration Charge decreases the revenue collected from RS 25 by $1,956 annually. When reflected in the COSA, this change causes an annual bill increase for Rate 1, Rate 2.1 and Rate 2.2 of 0.08%, while RS 25 receives an annual bill decrease of 1.2%.

13.7.1.4 Final COSA Results and Rebalancing

The table below presents the R:C and M:C ratios before rebalancing and after the rate design proposal changes discussed above. As discussed in section 6.5.1 of the Application, FEI targets a range of reasonableness between 90% – 110%.

Table 13-26: Revenue to Cost and Margin to Cost Ratios before rebalancing

Rate Schedule	Initial COSA		Revenue Shift ($000)	Approximate Annual Bill Change	COSA after Rate Design Proposals	
	R:C	M:C			R:C	M:C
Rate 1 *Domestic (Residential) Service*	90.5%	88.0%	0.8	0.1%	90.9%	88.4%
Rate 2.1 *General (Small Commercial) Service*	108.3%	110.7%	(126.0)	0.1%	107.2%	109.4%
Rate 2.2 *General (Large Commercial) Service*	113.2%	118.2%	127.0	0.1%	114.5%	118.4%
Rate Schedule 25 *General Firm Transportation Service*	112.1%	112.1%	(1.8)	-1.2%	111.0%	111.0%

The table above shows that Rate 2.2 and RS 25 are outside the range of reasonableness. FEI's rebalancing proposals include the following adjustments to revenue responsibility:

- Decrease Rate 2.2 revenue by $16 thousand which will reduce the R:C ratio of Rate 2.2 to within the range of reasonableness.

- Increase Rate 1 revenue by $16 thousand to offset the decrease in revenue from Rate 2.2.

The following table presents the rebalancing amounts and Revenue to Cost (and Margin to Cost) ratios after rebalancing.

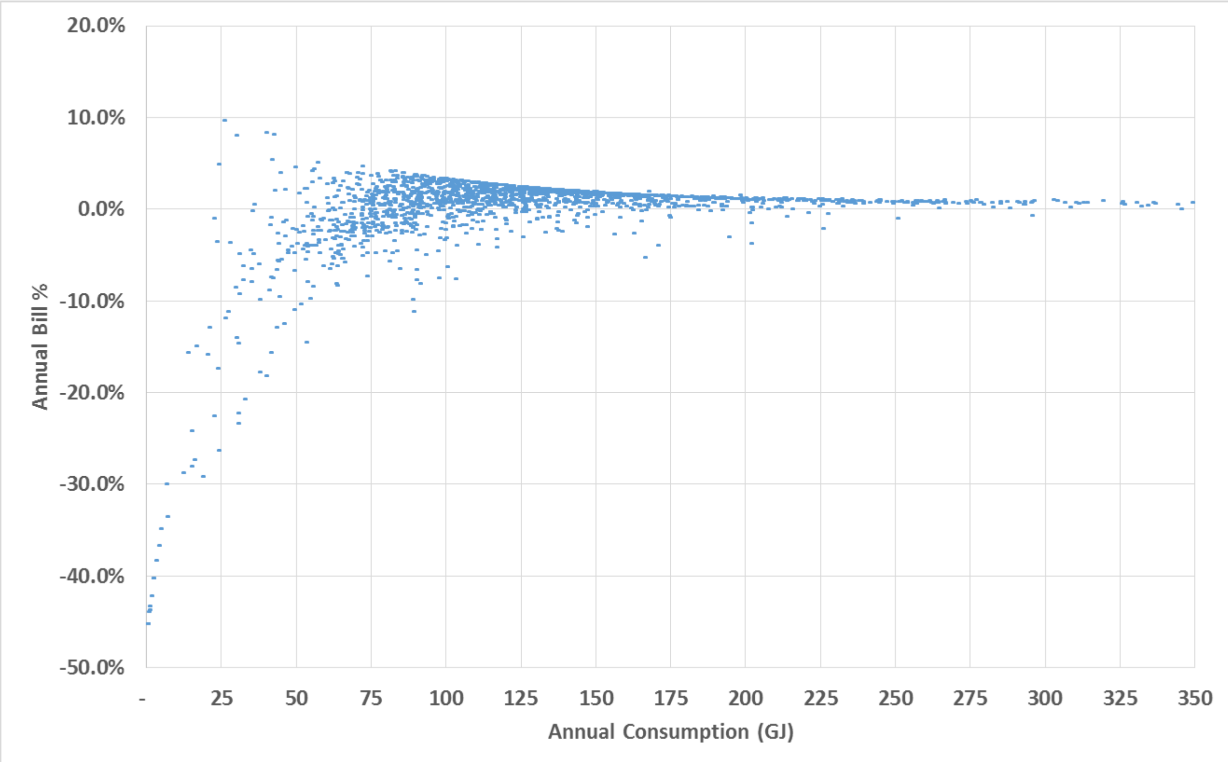
Table 13-27: Revenue to Cost and Margin to Cost Ratios after rebalancing

Rate Schedule	COSA after Rate Design Proposals		Rebalance Amount ($000)	Approximate Annual Bill Change	COSA after Rate Design Proposals and Rebalancing	
	R:C	M:C			R:C	M:C
Rate 1 *Domestic (Residential) Service*	90.9%	88.4%	16.0	1.9%	91.9%	89.7%
Rate 2.1 *General (Small Commercial) Service*	107.2%	109.4%			107.2%	109.4%
Rate 2.2 *General (Large Commercial) Service*	114.5%	118.4%	(16.0)	-3.2%	109.9%	112.6%
Rate Schedule 25 *General Firm Transportation Service*	111.0%	111.0%			111.0%	111.0%

Fort Nelson rates must be adjusted to account for the shift in revenue responsibility. For Rate 1, FEI will increase the Basic Charge to $0.3003 per day so that the $16 thousand in revenue shift is recovered from all residential customers equally. FEI chose to collect all of the revenue shift through the Rate 1 Basic Charge because the lowest consuming customers receive the greatest rate reductions to their annual bills through the unbundling of Fort Nelson residential rates. Before rebalancing, a customer with annual consumption of 34 GJ (one quarter of the average) will experience a 7% decrease to their annual bill. By applying the adjustment only to the Basic Charge, FEI moderates the decrease to lower consuming customers making the adjustments more equitable between low and high consumers in Rate 1. This also results in Fort Nelson collecting more of its customer-related charges through the Basic Charge. Fort Nelson will collect approximately 19% of its revenue from Rate 1 through the Basic Charge; the customer-related costs in the COSA equal 62%.

The following figure illustrates Rate 1 customer bill impacts from all changes including unbundling and rebalancing. Each point on the graph is an individual customer.

Figure 13-18: Rate 1 Bill Impacts from all Rate Design Proposals



For Rate 2.2, FEI adjusted rates to account for the decrease in revenue responsibility of $16 thousand, maintain an economic break even threshold of 2,000 GJ /year as discussed in section 13.5.5.4, align the basic charge of both Rate 2.1 and Rate 2.2 proportionally to the customer classified costs from the COSA model and limit any individual customer's annual bill impact.

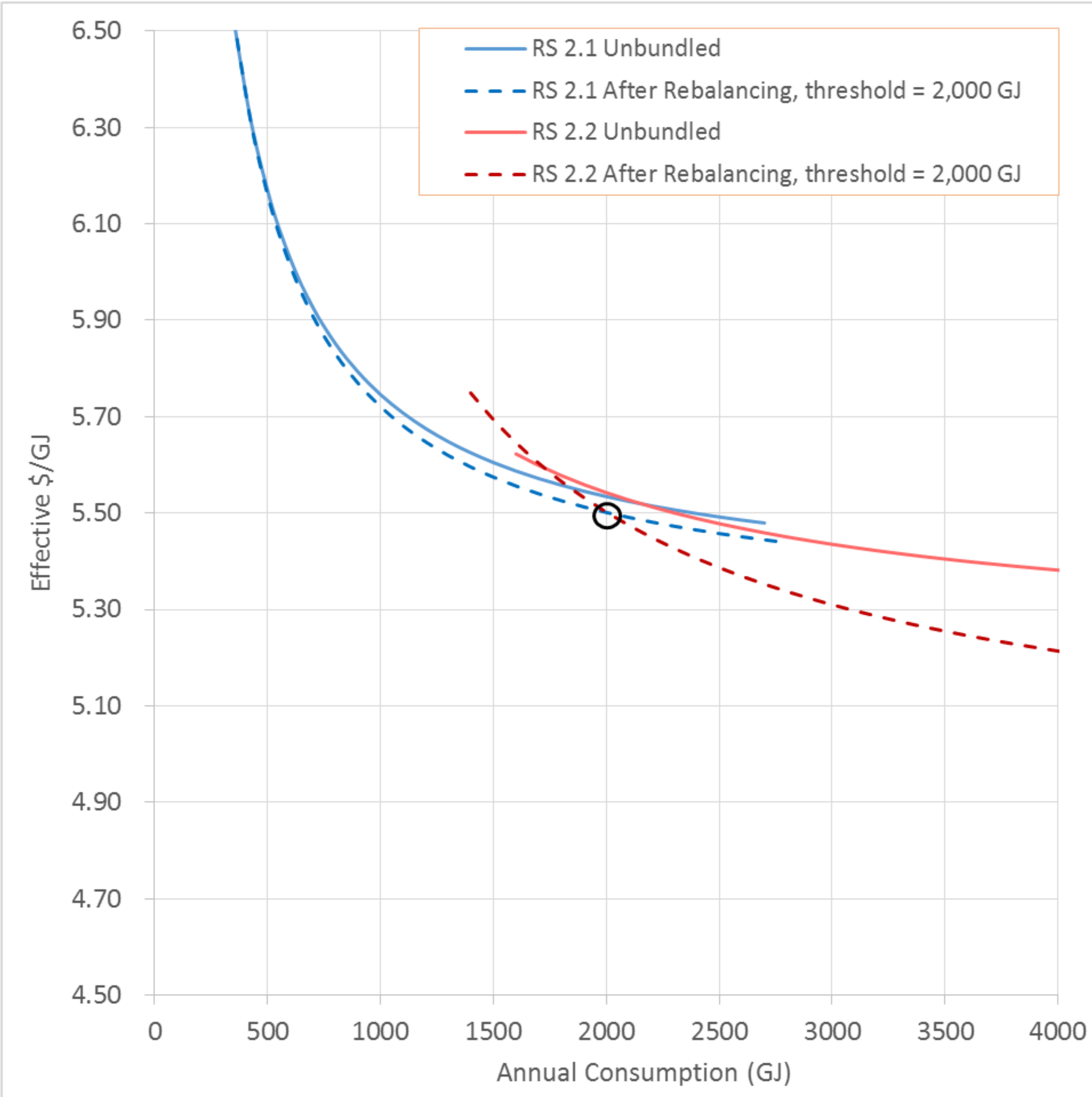
The following table shows the rates for the daily Basic Charge and the volumetric Delivery Charge for Rate 2.1 and 2.2.

Table 13-28: Rate 2.1 and 2.2 Charges after all Rate Design Proposals

	Rate 2.1	Rate 2.2
Daily Basic Charge ($/Day)	1.2008	3.1581
Delivery Charge ($/GJ)	3.989	3.631

The following figure compares the effective rates per GJ for Rate 2.1 and 2.2 after unbundling and removing declining block, set (including rebalancing) to attain a 2,000 GJ/year breakeven point and minimizing individual customer bill impacts.

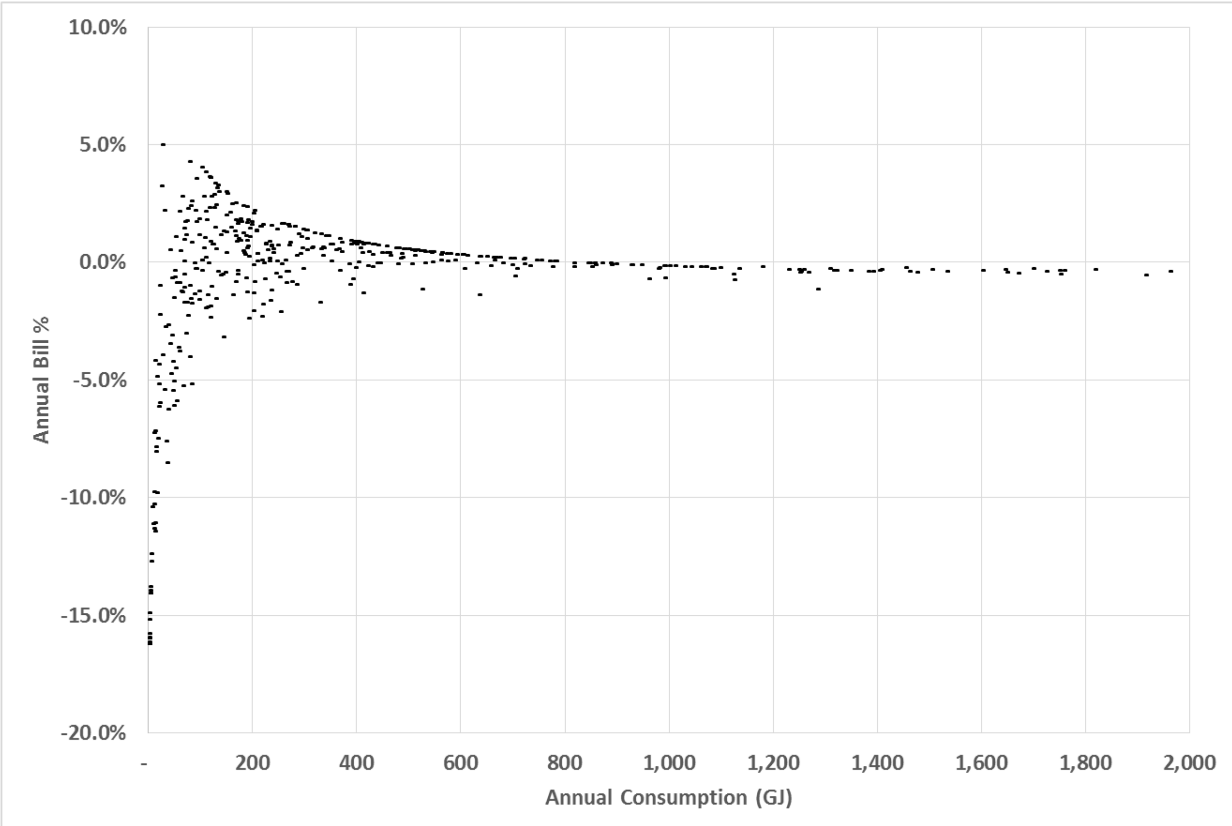
Figure 13-19: Rate 2.1 and 2.2 Effective $/GJ



The two solid lines are the effective delivery rates ($/GJ) after Rate 2.1 and Rate 2.2 are unbundled, where the charges are set to collect the existing revenue responsibility of each Rate and so that the bill impact to any one customer is minimized. The two dotted lines are the effective delivery rates ($/GJ) after Rate 2.1 and Rate 2.2 are unbundled, Rate 2.2 is rebalanced, the break even threshold is set to 2,000 GJ per year, the bill impact to any one customer is limited and charges are set so that the basic charges of Rate 2.1 and Rate 2.2 are proportionately aligned to the customer classified costs from the COSA.

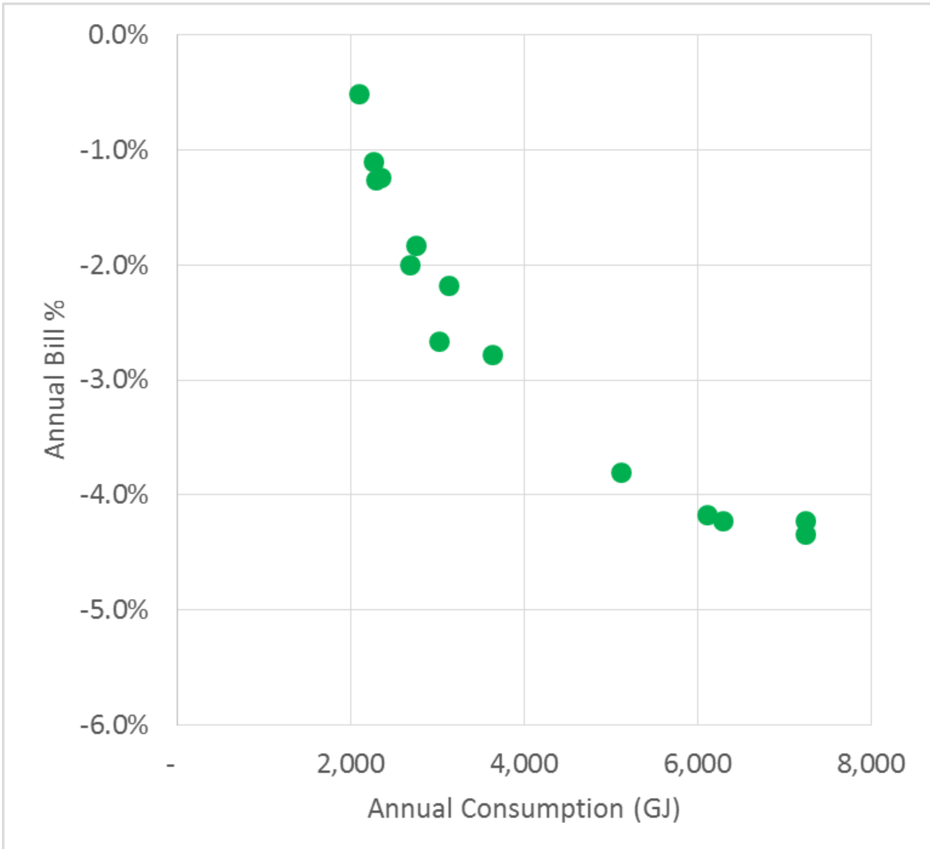
The following two figures show Rate 2.1 and Rate 2.2 customer bill impacts from all changes including unbundling, setting the break even to 2,000 GJ per year and rebalancing.

Figure 13-20: Rate 2.1 Bill Impacts from all Rate Design Proposals



The figure above shows Rate 2.1 customers' bill impacts after unbundling and rebalancing, setting the break even threshold between Rate 2.1 and Rate 2.2 to 2,000 GJ/year and limiting any one customer's bill impact. Each point is an individual customer. Rate 2.1 customers experience between a 5% increase and 15% decrease in their annual bills.

Figure 13-21: Rate 2.2 Bill Impacts from all Rate Design Proposals



The figure above shows Rate 2.2 customers' bill impacts after unbundling and rebalancing, setting the break even threshold between Rate 2.1 and Rate 2.2 to 2,000 GJ/year and limiting any one customer's bill impact. Each point is an individual customer. Rate 2.2 customers experience about a 0.5% or greater decrease in their annual bills.

Detailed Final COSA schedules are included as Appendix 13-5.

13.7.2 Summary of Rate Proposals

Table 13-29 below presents a summary of FEI's rate design proposals for Fort Nelson.

Table 13-29: Fort Nelson Rate Proposal Summary

Rate Component	Rate 1	Rate 2.1	Rate 2.2	Rate 3.1	RS 25
Existing COSA Rates[27]					
Minimum daily Charge incl. 1st 2 GJ/month	$0.5483	$1.4337	$1.4337		
Administration Charge (/month)					$202
Next 28 GJ/month	$4.885				
Excess over 30 GJ/month	$4.782				
Next 298 GJ/ month		$5.336	$5.336		
Excess over 300 GJ/month		$5.210	$5.210		
Delivery Charge First 20 GJ/month				$4.522	$4.522
Delivery Charge Next 260 GJ/month				$4.201	$4.201
Excess over 280 GJ/month				$3.450	$3.450
Minimum Delivery Charge/month				$1,826	$1,826
Total Annual Bill:[28]	**$742**	**$2,433**	**$28,546**	**n/a**[29]	**$148,664**
Proposed Rates					
Basic Charge/Day	$0.3003	$1.2008	$3.1581		
Basic Charge (/Month)				$600.00	$600.00
Administration Charge (/Month)					$39.00
Demand Charge (/GJ/Month)				$28.727	$28.727
Delivery Charge ($/GJ)	$3.512	$3.989	$3.631	$1.000	$1.000
Commodity Cost Recovery Charge ($/GJ)	$1.275	$1.275	$1.275	$1.275	
Storage and Transport Charge ($/GJ)	$0.019	$0.020	$0.017	$0.019	
Total Annual Bill:	**$758**	**$2,457**	**$27,405**	**n/a**[30]	**$148,243**

13.7.3 Postage Stamp Rates

In this section FEI shows the rate impacts to Fort Nelson customers if delivery rates and gas costs were to be postage stamped with the rest of FEI's service areas. Due to the potential rate impacts from postage stamp rates, and in consideration of the impacts from the proposed rebalancing and already approved rate changes for 2017 and 2018, FEI is not proposing to postage stamp Fort Nelson rates at this time.

[27] The COSA rates shown are 2018 approved rates, $1.294 Gas Cost Recovery Charge, and test year adjustments discussed above in Section 13.4.1.3.

[28] Based on an average annual demand per customer of 135 GJ for Rate 1, 382 GJ for Rate 2.1 and 5,332 GJ for Rate 2.2 and 39,500 GJ for RS 25.

[29] There are no customers taking service under Rate 3.1, therefore Total Annual Bill shows as n/a.

[30] Ibid.

Table 13-30 below shows a comparison between FEI and Fort Nelson effective delivery rates for residential, commercial and industrial customers.

Table 13-30: Comparison between FEI and Fort Nelson Delivery Rates

Fort Nelson Rate Design
Postage Stamp Comparison - *Effective Delivery Rate*

	FEI Proposed Rates	Fort Nelson Proposed Rates	Difference	FN/FEI
Rate Schedule 1 (1b)				
Basic Charge/Day	$ 0.4085	$ 0.3003	$ (0.1082)	
Delivery Charge/GJ	$ 4.746	$ 3.512	$ (1.234)	
Annual Usage (GJ)	132.53	132.53		
Effective Rate/GJ	**$ 5.87**	**$ 4.34**	**$ (1.53)**	-26%
Rate Schedule 2 (2.1)				
Basic Charge/Day	$ 0.9485	$ 1.2008	$ 0.2523	
Delivery Charge/GJ	$ 3.664	$ 3.989	$ 0.325	
Annual Usage (GJ)	382.2	382.2		
Effective Rate/GJ	**$ 4.57**	**$ 5.14**	**$ 0.57**	12%
Rate Schedule 3 (2.2)				
Basic Charge/Day	$ 4.7895	$ 3.1581	$ (1.6314)	
Delivery Charge/GJ	$ 3.190	$ 3.631	$ 0.441	
Annual Usage (GJ)	5,332.1	5,332.1		
Effective Rate/GJ	**$ 3.52**	**$ 3.85**	**$ 0.33**	9%
Rate Schedule 25				
Admin Charge/Mth	$ 39	$ 39	$ -	
Basic Charge/Mth	$ 587	$ 600	$ 13	
Demand Charge/GJ/Mth	$ 24.596	$ 28.727	$ 4.131	
Delivery Charge/GJ	$ 0.887	$ 1.000	$ 0.113	
Contract Demand	292.7	292.7		
Annual Usage (GJ)	39,500.0	39,500.0		
Effective Rate/GJ	**$ 3.26**	**$ 3.75**	**$ 0.48**	15%

As shown above, the proposed Fort Nelson residential customers' effective delivery rate is 26% lower than the delivery rates proposed for FEI residential customers. The effective delivery rate of commercial customers served under Rate Schedule 2 (formerly Rate 2.1) is 12% higher under Fort Nelson proposed changes compared to FEI RS 2 customers. With the proposed changes discussed above, Rate Schedule 3 (formerly Rate 2.2) customers' effective delivery rate is 9% higher than FEI proposed rates for RS 3 customers, while Rate Schedule 25 Fort Nelson customers' effective delivery rate will be 15% higher than FEI's RS 25 rates.

The following table compares the gas cost recovery for Fort Nelson and FEI for residential, small commercial and large commercial as of July 1, 2016 and January 1, 2017.

Table 13-31: Comparison of Gas Cost Recovery FEI and Fort Nelson Residential and Commercial Customers

Line				
As of July 1, 2016				
	Fort Nelson	**Rate 1**	**Rate 2.1**	**Rate 2.2**
1	**Total:**	**$1.294**	**$1.294**	**$1.294**
	FEI	**RS 1**	**RS 2**	**RS 3**
2	Commodity Cost Recovery rates	$1.719	$1.719	$1.719
3	Storage & Transport rates	$1.117	$1.133	$0.940
4	**Total:**	**$2.836**	**$2.852**	**$2.659**
5	Variance (Line 4 – Line 1)	$1.542	$1.558	$1.365
As of January 1, 2017				
	Fort Nelson	**Rate 1**	**Rate 2.1**	**Rate 2.2**
6	**Total:**	**$2.086**	**$2.086**	**$2.086**
	FEI	**RS 1**	**RS 2**	**RS 3**
7	Commodity Cost Recovery rates	$2.050	$2.050	$2.050
8	Storage & Transport rates	$1.009	$1.020	$0.851
9	**Total:**	**$3.059**	**$3.070**	**$2.901**
10	Variance (Line 9 – Line 6)	$0.973	$0.984	$0.815

Whether looking at the variance of the gas cost as of July 1, 2016 or January 1, 2017, there is a substantive difference in the gas costs for Fort Nelson customers compared to the postage stamp rates for FEI's other customers. The primary reason for this difference is that the transport costs for delivery to Fort Nelson on Spectra's T-North Short Haul is only approximately two cents (see Table 13-11, Line 13).

Table 13-32 below shows the result if the effective delivery rate difference for residential and commercial classes in Table 13-30 is added to the gas cost variance in Table 13-31 (based on January 1, 2017 gas costs embedded in customers' bundled rates). The table shows that residential and commercial customers have lower rates in Fort Nelson than in FEI's other service areas.

Table 13-32: Summation of Effective Delivery Variance and Cost of Gas Variance $ / GJ

	Residential	Small Commercial	Large Commercial
Effective Delivery Rate Difference	$1.53	$(0.57)	$(0.33)
Total Cost of Gas Variance	$0.97	$0.98	$0.82
Total Variance	$2.50	$0.41	$0.49
Total Variance %	-28%	-5%	-8%

In addition to the rate differences summarized in Table 13-32 above, and in consideration of the proposed rebalancing discussed in section 13.7.1.4 of the Application and the delivery rate changes approved for 2017 and 2018 by Order G-162-16 related to Fort Nelson's revenue requirements and rates application, FEI is not proposing to postage stamp rates for Fort Nelson customers at this time.

13.7.4 Conclusion

Based on the analysis and considerations set out above in this section, FEI believes that its rate design proposals for Fort Nelson customers will result in a reasonable balance of rate design principles, are just and reasonable and should be approved as proposed.

Appendix 1-2

DRAFT FINAL ORDER – REVISED BLACKLINED

EVIDENTIARY UPDATE DATED APRIL 7, 2017

British Columbia Utilities Commission

Sixth floor, 900 Howe Street
Vancouver, BC Canada V6Z 2N3
TEL: (604) 660-4700
BC Toll Free: 1-800-663-1385
FAX: (604) 660-1102

ORDER NUMBER
G-xx-xx

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

and

FortisBC Energy Inc.
2016 Rate Design Application

BEFORE:
Panel Chair/Commissioner
Commissioner
Commissioner

on Date

ORDER

WHEREAS:

A. On December 19, 2016, FortisBC Energy Inc. (FEI or the Company) filed an Application with the British Columbia Utilities Commission (Commission) seeking the necessary approvals, pursuant to sections 58 to 61 of the *Utilities Commission Act* (Act), to adjust its rate design and terms and conditions of service for all service areas to improve the alignment with accepted rate design principles (Application);

B. On January 20, 2017, the Commission commenced its review of the Application and issued Order G-6-17 establishing a Regulatory Timetable;

C. On February 2, 2017, in accordance with the Regulatory Timetable, FEI submitted its supplemental filing which included FEI's revisions to its rate schedules reflecting the proposals in the Application and the proposed rate design for the Fort Nelson Service Area;

D. On March 2, 2017, a Workshop was held to review the information provided to stakeholders at the May 19, 2016, Education & Background Information Session;

E. On March 9, 2017, a second Workshop was held to review the COSA Model, Proposals in the Application, and Approvals Sought;

F. On [DATE, 2017], the Commission held a procedural conference to address, among other things, the process and timetable for the remainder of the review of the Application;

G. On [DATE, 2017], the Commission issued Order G-XX-2017 establishing a written/oral hearing process; and

H. The Commission has reviewed and considered the Application, the evidence filed, and the submissions provided by all participants, and has determined that the requested changes, as outlined in the Application, should be approved.

…/2

NOW THEREFORE pursuant to sections 59 to 61 of the *Utilities Commission Act*, the British Columbia Utilities Commission orders as follows:

Midstream Cost Allocation Methodology

1. The use of a three-year average load factor in RS 5 to allocate midstream costs when setting FEI's Storage and Transport Charges for RS 5, as discussed in Section 6.4.2.1 of the Application, is approved.

FEI Residential Rate Schedules

2. The following rate design proposals for Rate Schedules 1, 1U, 1X, and 1B are approved:
   - An increase to the Basic Charge per Day by $0.0195 from $0.3890/Day to $0.4085/Day to increase the proportion of fixed costs recovered by the Basic Charge, as discussed in Section 7.8 of the Application.
   - A decrease to the Delivery Charge per GJ by $0.086/GJ to maintain revenue neutrality with the Basic Charge increase, as discussed in Section 7.8 of the Application.
   - The housekeeping and other amendments as set out in Appendix 11-3, and discussed in the supplemental filing to the Application.
   - An increase the Delivery Charge per GJ by $0.011/GJ as a result of the revenue shifts and rebalancing of rates discussed in Section 12.2 of the Application.

FEI Commercial Rate Schedules

3. The adjustments to the basic charges and delivery charges of the commercial rate schedules to align with the 2,000 GJ threshold between small and large commercial customers, as discussed in Section 8.7 of the Application, are approved, as follows:
   - For Rate Schedules 2, 2B, 2U, and 2X:
     - Increase the Basic Charge per Day by $0.1324 from $0.8161/Day to $0.9485/Day.
     - Decrease the Delivery Charge per GJ by $0.186/GJ.
   - For Rate Schedules 3, 3B, 3U, 3X, and 23:
     - Increase the Basic Charge per Day by $0.4357 from $4.3538/Day to $4.7895/Day.
     - Increase the Delivery Charge per GJ by $0.001/GJ.
   - For RS 23:
     - Decrease the Administration Charge per Month from $78.00 to $39.00, set out in Appendices 11-3 and 11-4, and discussed in the supplemental filing to the Application.
4. The proposed housekeeping and other amendments to Rate Schedules 2, 2U, 2X, 2B, 3, 3U, 3X, 3B, and 23, as set out in Appendix 11-3, and discussed in the supplemental filing to the Application, are approved.

FEI Industrial Rate Schedules

5. The revision to the multiplier in the Daily Demand formula in RS 5 and RS 25 from 1.25 to 1.10 and increase in the Demand Charge in RS 5 and RS 25 by $3.00/GJ/Month, as discussed in Section 9.5, are approved.

6. The decrease in the Delivery Charge of RS 7 and RS 27 by $0.012/GJ as shown in Table 9-20 and discussed in Section 9.6, is approved.
7. The increase to RS 4 rates due to the proposed changes to RS 5 and RS 7 as shown in Table 9-21 and discussed in Section 9.7, by increasing the Off-Peak Delivery Rate by $0.114/GJ and by decreasing the Extension Period by $0.018/GJ, is approved.
8. Setting the charges for RS 22 on a cost of service basis for all large industrial customers, as discussed in Section 9.8.5 and set out below, is approved:
   - Firm Demand Charge of $25.000/GJ/Month.
   - Firm MTQ Delivery Charge of $0.015/GJ.
   - Interruptible MTQ Delivery Charge of $0.972/GJ.
9. Termination of Tariff Supplement G-21, FEI's contract with Creative Energy Vancouver Platforms Inc., effective June 1, 2018, as discussed in Section 9.8.5 of the Application, is approved.
10. The following adjustments to the transportation model are approved:
    - Amendments to Rate Schedules 22, 22A, 22B, 23, 25, 26, and 27 to implement daily balancing for all transportation customers, as discussed in Section 10.6.
    - Amendments to Rate Schedules 22, 22A, 22B, 23, 25, 26, and 27 to reduce the daily balancing tolerance to a 10% threshold and to introduce a balancing charge of $0.25/GJ for transportation customers for gas supply shortfalls within a 10% to 20% tolerance level, as discussed in Section 10.7.
11. The proposed housekeeping and other amendments to Rate Schedules 5, 7, 11B, 14A, 22, 22A, 22B, 25, 26, and 27 as set out in Appendices 11-3 and 11-4, and discussed in the supplemental filing to the Application, are approved.
12. The decrease to the Delivery Charge per GJ of RS 6 by $1.318/GJ to address rebalancing, as discussed in Section 12.2.2 of the Application, is approved.
13. Setting the Delivery Charge per GJ for RS 6P to equal the Delivery Charge per GJ of RS 6, as discussed in Section 12.2.2 of the Application, is approved.

General Terms and Conditions

14. The housekeeping and other amendments to FEI's General Terms and Conditions, as set out in Appendices 11-1 and 11-2 and discussed in Section 11 of the Application, are approved.
15. The proposed amendments to the FEI Rate Schedules as set out and discussed in Appendix 11-3 of the Application are approved.

Fort Nelson Service Area

16. The cancellation of the following Fort Nelson Rates , each of which has no customers, is approved:
    - Rate 1 Option A - Domestic Service for Primary space heating equipment purchased from FEI Fort Nelson
    - Rate 2.4 - Compression/Dispensing Service
    - Rate 3.2 – Industrial Service

- Rate 3.3 – Industrial Service

17. The proposal to rename Fort Nelson's existing Rates to align with FEI's Rate Schedule naming convention, as set out in Table 13-1 of Section 13.2.1.1 of the Application, is approved.
18. The proposal to unbundle Fort Nelson's residential and commercial rates, as discussed in Section 13.5.2 of the Application, is approved.
19. The proposal to record the cost of changes to the billing system in a deferral account on a net-of tax basis and amortized over 5 years beginning in 2019, as discussed in Section 13.5.2 of the Application, is approved.
20. The following rate design proposals for Rate Schedules 1, 2, 3, 5, and 6 are approved
    - To set a Commodity Cost Recovery Charge based on classifying commodity costs as energy-related and allocating those costs to all sales customers based on throughput, as discussed in section 13.4.2 of the Application.
    - To set a Storage and Transport Charge based on classifying midstream costs as demand-related and allocating those costs to all sales customers based on their load factor adjusted volume, as discussed in section 13.4.2 of the Application.
21. The following rate design proposal for Rate Schedule 1 is approved
    - To set the Basic Charge per Day at $0.3003 and the Delivery Charge at $3.512 per GJ as a result of unbundling the rate structure in a way that minimizes the bill increase for any individual customer as discussed in sections 13.5.4 and 13.7 of the Application.
22. The following rate design proposals for Rate Schedules 2 and 3 are approved
    - To change the annual volume threshold between small and large commercial customers from 6,000 GJ to 2,000 GJ.
    - To set the Basic, Delivery, Commodity, and Storage and Transport Charges for commercial customers to align with the 2,000 GJ threshold as discussed in Sections 13.5.5 and 13.7 of the Application, as follows:
        - For Rate Schedule 2 (formerly Rate 2.1 – customers whose normal annual consumption is less than 2,000 GJ): set the Basic Charge per Day at $1.2008 and Delivery Charge at $3.989 per GJ as a result of unbundling the rate structure as discussed in Sections 13.5.5 and 13.7 of the Application.
        - For Rate Schedule 3 (formerly Rate 2.2, and Rate 2.1 customers whose normal annual consumption is greater than 2,000 GJ): set the Basic Charge per Day at $3.1581 and Delivery Charge at $3.631 per GJ as a result of unbundling the rate structure as discussed in sections 13.5.5 and 13.7 of the Application.
        - For Rate Schedule 6 (formerly Rate 2.3): set the Basic Charge per Day and Delivery Charge equal to FEI's approved January 1, 2018 RS 6 rates, as a result of unbundling the rate structure.
23. The following rate design proposals for Rate Schedule 5 and 25 as discussed in Section 13.5.5.3 of the Application are approved
    - To set the Daily Demand equal to 1.10 multiplied by the greater of:
        i. The customer's highest average daily consumption of any month during the winter period (November 1 to March 31); or
        ii. One half of the Customer's highest average daily consumption of any month during the summer period (April 1 to October 31).

Deleted: 0.4591

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The calculation of Daily Demand will be based on the Customer's actual gas use during the preceding Contract Year.

24. The following rate design proposals for Rate Schedule 5 as discussed in Section 13.5.5.3 of the Application are approved:
    - To set the Basic Charge at $600.00 per Month, the Demand Charge per Month per GJ of Daily Demand at $28.727, the Delivery Charge per GJ at $1.000.
    - To phase-out the Rate Revenue Stabilization Adjustment Mechanism Charge (Rate Rider 5) over two years as discussed in Section 13.5.6 of the Application.

25. The following rate design proposals for Rate Schedule 25 as discussed in Section 13.5.5.3 of the Application are approved:
    - Amendments to implement daily balancing, as discussed in Section 10.6 of the Application.
    - Amendments to reduce the daily balancing tolerance to a 10% threshold and to introduce a balancing charge of $0.25/GJ for gas supply shortfalls within a 10% to 20% tolerance level, as discussed in Section 10.7 of the Application.
    - To set the Basic Charge at $600.00 per Month, the Demand Charge per Month per GJ of Daily Demand at $28.727, the Delivery Charge per GJ at $1.000, and the Administrative Charge per Month at $39.00.
    - To phase-out the Rate Revenue Stabilization Adjustment Mechanism Charge (Rate Rider 5) over two years as discussed in Section 13.5.6 of the Application.

26. The housekeeping and other amendments to the Fort Nelson Gas Tariff, as set out in Appendix 13-6 and the amendments to the terms and conditions for Rate Schedules 1, 2, 3, 5, 6 and 25, are approved

Implementation

27. FEI is directed to file with the Commission amended tariff pages in accordance with the terms of this order to be effective June 1, 2018.

DATED at the City of Vancouver, in the Province of British Columbia, this (XX) day of (Month Year).

BY ORDER

(X. X. last name)
Commissioner

Appendix 13-1

MINIMUM SYSTEM STUDY FOR FORT NELSON BLACKLINED

EVIDENTIARY UPDATE DATED APRIL 7, 2017

3 PURPOSE OF PEAK LOAD CARRYING CAPABILITY STUDY

In the Minimum System Study the proportion of costs determined to be customer related is overstated since the customer related portion also has the ability to carry some demand. As a result an adjustment to account for the PLCC of the minimum system is required.

The PLCC adjustment involves the FEI System Capacity Planning Department determining the theoretical capacity of each distribution system in the Province assuming a 60 mm main diameter. The 60 mm main diameter is the minimum size normally installed by the Company as specified by the FEI installation standard. The capacities of the minimum sized distribution systems are then divided by the number of customers served by each distribution system and an average minimum system capacity per customer (the "PLCC Adjustment") is calculated. This PLCC Adjustment is then multiplied by the number of customers in each rate class, and the corresponding amount is subtracted from the peak demand for that rate class to get the PLCC adjusted peak demand. This PLCC adjusted peak demand is then used to allocate the demand related costs for the Distribution function.

The Minimum System approach with PLCC Adjustment more closely matches the theoretical demand and customer related components of the distribution system, and is important to consider with the increase in the Company's minimum installation size of mains to 60 mm.

4 PLCC ADJUSTMENT

Table 4 presents the PLCC Adjustment for Fort Nelson service area(*1.178 GJ/day/customer*) and details associated with the PLCC calculation, which was calculated through the following steps:

1. The System Planning Department calculates the load capacity of the distribution network in the the Fort Nelson service area assuming only 60 mm mains are used.

2. Since each network serves a different number of customers, the average system capacity is calculated by summing the network capacities and dividing by the total number of customers.

Table 4: PLCC Summary – Capacity Calculation of the Fort Nelson Distribution System with 60 mm Mains

Network Area Model	Design Degree Day	Heating Value (MJ/m³)	Network Capacity for PLCC (m³/h)	Customers	Total Network Capacity (GJ/d)
Fort Nelson	62.0	37.559	3,261	2,496	2,939
Average consumption per Customer (Average GJ/d Customer)					1.178

Deleted: total
Deleted: the FEI
Deleted: *0.205*
Deleted: each
Deleted: Province
Deleted: Each

Evidentiary Update, dated April 7, 2017

5 SUMMARY

6 The Minimum System study with PLCC Adjustment classifies costs associated with distribution mains into customer and demand related components. Along with the use of the PLCC Adjustment, the two studies produce results that closely match the theoretical demand and customer related components of the distribution system.

Appendix 13-1

MINIMUM SYSTEM STUDY FOR FORT NELSON CLEAN

EVIDENTIARY UPDATE DATED APRIL 7, 2017

3 PURPOSE OF PEAK LOAD CARRYING CAPABILITY STUDY

In the Minimum System Study the proportion of costs determined to be customer related is overstated since the customer related portion also has the ability to carry some demand. As a result an adjustment to account for the PLCC of the minimum system is required.

The PLCC adjustment involves the FEI System Capacity Planning Department determining the theoretical capacity of each distribution system in the Province assuming a 60 mm main diameter. The 60 mm main diameter is the minimum size normally installed by the Company as specified by the FEI installation standard. The capacities of the minimum sized distribution systems are then divided by the number of customers served by each distribution system and an average minimum system capacity per customer (the "PLCC Adjustment") is calculated. This PLCC Adjustment is then multiplied by the number of customers in each rate class, and the corresponding amount is subtracted from the peak demand for that rate class to get the PLCC adjusted peak demand. This PLCC adjusted peak demand is then used to allocate the demand related costs for the Distribution function.

The Minimum System approach with PLCC Adjustment more closely matches the theoretical demand and customer related components of the distribution system, and is important to consider with the increase in the Company's minimum installation size of mains to 60 mm.

4 PLCC ADJUSTMENT

Table 4 presents the PLCC Adjustment for Fort Nelson service area (*1.178 GJ/day/customer*) and details associated with the PLCC calculation, which was calculated through the following steps:

1. The System Planning Department calculates the load capacity of the distribution network in the the Fort Nelson service area assuming only 60 mm mains are used.

2. Since each network serves a different number of customers, the average system capacity is calculated by summing the network capacities and dividing by the total number of customers.

Table 4: PLCC Summary – Capacity Calculation of the Fort Nelson Distribution System with 60 mm Mains

Network Area Model	Design Degree Day	Heating Value (MJ/m³)	Network Capacity for PLCC (m³/h)	Customers	Total Network Capacity (GJ/d)
Fort Nelson	62.0	37.559	3,261	2,496	2,939

Average consumption per Customer (Average GJ/d Customer) **1.178**

5 SUMMARY

6 The Minimum System study with PLCC Adjustment classifies costs associated with distribution mains into customer and demand related components. Along with the use of the PLCC Adjustment, the two studies produce results that closely match the theoretical demand and customer related components of the distribution system.

Appendix 13-4

FORT NELSON BASELINE COSA FINANCIAL SCHEDULES

EVIDENTIARY UPDATE DATED APRIL 7, 2017

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year **Schedule 1**
SUMMARY (000's)

Line No.	Particulars	Reference	Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	**REVENUE TO COST**						
2	Revenue at 2018 Approved Rates [1 2]	Line 2 + Line 3	**$ 3,138**	**$ 1,423**	**$ 1,267**	**$ 300**	**$ 149**
3	Revenue Margin at 2018 Approved Rates [1 2]		$ 2,465	$ 1,087	$ 1,003	$ 227	$ 149
4	Cost of Gas at 2018 Approved Rates [2]		$ 673	$ 336	$ 264	$ 73	$ -
5							
6	**COST OF SERVICE**						
7	Total Utility Cost of Service	Line 7 + Line 8	**$ 3,162**	**$ 1,583**	**$ 1,178**	**$ 267**	**$ 134**
8	Allocated Cost of Service Margin		$ 2,489	$ 1,247	$ 914	$ 194	$ 134
9	Total Cost of Gas		$ 673	$ 336	$ 264	$ 73	$ -
10							
11	**SURPLUS / DEFICIT**						
12	Total Surplus / (Deficit) [3]	Line 2 - Line 7	$ (24)				
13	% Increase to Equal Allocated Costs	- Line 12 / Line 3	1.0%				
14							
15	**REVENUES (adjusted to equal COS)**						
16	Adjusted Revenue at 2018 Approved Rates [1]	Line 4 + Line 17	**$ 3,162**	**$ 1,434**	**$ 1,276**	**$ 302**	**$ 150**
17	Adjusted Margin 2018 Approved Rates [1]	Line 3 x (1 + Line 13)	$ 2,489	$ 1,098	$ 1,012	$ 229	$ 150
18							
19	REVENUES (adjusted for R/C ratio's)	Line 16	**$ 3,162**	**$ 1,434**	**$ 1,276**	**$ 302**	**$ 150**
20	COST OF SERVICE (adjusted for R/C ratio's)	Line 7	**$ 3,162**	**$ 1,583**	**$ 1,178**	**$ 267**	**$ 134**
21							
22	**REVENUE TO COST RATIO**						
23	Revenue to Cost Ratio before Rebalancing	Line 19 / Line 20	**100.0%**	**90.5%**	**108.3%**	**113.2%**	**112.1%**
24							
25	**REVENUE REBALANCING**						
26	Adjustment		$ -	$ -	$ -	$ -	$ -
27	Total Adjusted Revenue	Line 16 + Line 26	**$ 3,162**	**$ 1,434**	**$ 1,276**	**$ 302**	**$ 150**
28	Total Adjusted Margin	Line 17 + Line 26	$ 2,489	$ 1,098	$ 1,012	$ 229	$ 150
29							
30	**REVENUE TO COST RATIO AFTER REBALANCING**						
31	Margin to Cost Ratio	Line 28 / Line 8	**100.0%**	**88.0%**	**110.7%**	**118.2%**	**112.1%**
32	Revenue to Cost Ratio	Line 27 / Line 20	**100.0%**	**90.5%**	**108.3%**	**113.2%**	**112.1%**
33							
34	**Note:**						
35	1. Includes Test Year Adjustment as described in Section 13.4.1.3						
36	2. G-162-16						
37	3. Test Year adjustment as described in Section 13.4.1.3						

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
FUNCTIONALIZATION (000's)

Schedule 2

Line No.	Particulars	Total	Gas Supply Operations	Transmission	Distribution	Marketing	Customer Accounting
1	Total Operating & Maintenance Expense	$ 913	$ 7	$ 79	$ 650	$ 82	$ 95
2	Property & Sundry Taxes	$ 139	$ -	$ 69	$ 70	$ -	$ -
3	Depreciation Expense	$ 388	$ -	$ 149	$ 239	$ -	$ -
4	Amortization Expense	$ 272	$ -	$ 120	$ 161	$ 7	$ (16)
5	Other Operating Revenue	$ (26)	$ -	$ -	$ (9)	$ -	$ (17)
6	Income Tax	$ 75	$ 0	$ 39	$ 35	$ 0	$ 0
7	Earned Return	$ 728	$ 1	$ 375	$ 344	$ 5	$ 3
8	**Total Cost of Service Margin**	**$ 2,489**	**$ 8**	**$ 831**	**$ 1,491**	**$ 94**	**$ 65**
9							
10	Cost of Gas - Commodity	$ 673	$ 673	$ -	$ -	$ -	$ -
11	**Total Utility Revenue Requirement**	**$ 3,162**	**$ 681**	**$ 831**	**$ 1,491**	**$ 94**	**$ 65**

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
RATE BASE SUMMARY - CLASSIFICATION (000's)

Schedule 3

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	**Gas Plant in Service**						
2	Total Gas Plant in Service		**$ 16,150**	**$ 7,566**	**$ 6,240**	**$ 1,405**	**$ 939**
3		Energy	$ -	$ -	$ -	$ -	$ -
4		Demand	$ 10,203	$ 3,461	$ 4,919	$ 1,353	$ 470
5		Customer	$ 5,946	$ 4,105	$ 1,320	$ 52	$ 469
6							
7	Total Accumulated Depreciation		**$ (4,549)**	**$ (2,210)**	**$ (1,668)**	**$ (352)**	**$ (320)**
8		Energy	$ -	$ -	$ -	$ -	$ -
9		Demand	$ (2,184)	$ (630)	$ (1,139)	$ (329)	$ (85)
10		Customer	$ (2,365)	$ (1,580)	$ (529)	$ (23)	$ (234)
11							
12	TOTAL Net Plant		**$ 11,601**	**$ 5,356**	**$ 4,572**	**$ 1,053**	**$ 619**
13		Energy	$ -	$ -	$ -	$ -	$ -
14		Demand	$ 8,019	$ 2,831	$ 3,780	$ 1,024	$ 384
15		Customer	$ 3,581	$ 2,525	$ 792	$ 30	$ 235
16							
17	**Contributions In Aid of Construction**						
18	Total Gas Plant in Service		**$ (1,326)**	**$ (627)**	**$ (512)**	**$ (114)**	**$ (73)**
19		Energy	$ -	$ -	$ -	$ -	$ -
20		Demand	$ (529)	$ (76)	$ (335)	$ (107)	$ (10)
21		Customer	$ (797)	$ (550)	$ (177)	$ (7)	$ (63)
22							
23	Total Accumulated Depreciation		**$ 744**	**$ 352**	**$ 287**	**$ 64**	**$ 41**
24		Energy	$ -	$ -	$ -	$ -	$ -
25		Demand	$ 253	$ 13	$ 178	$ 59	$ 2
26		Customer	$ 491	$ 339	$ 109	$ 4	$ 39

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year

Schedule 3

RATE BASE SUMMARY - CLASSIFICATION (000's)

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
27							
28	TOTAL Net Plant		**$ (582)**	**$ (274)**	**$ (225)**	**$ (50)**	**$ (33)**
29		Energy	$ -	$ -	$ -	$ -	$ -
30		Demand	$ (276)	$ (63)	$ (157)	$ (48)	$ (9)
31		Customer	$ (306)	$ (211)	$ (68)	$ (3)	$ (24)
32							
33	**Work in Process, no AFUDC**		**$ 35**	**$ 16**	**$ 14**	**$ 3**	**$ 2**
34		Energy	$ -	$ -	$ -	$ -	$ -
35		Demand	$ 27	$ 11	$ 12	$ 3	$ 2
36		Customer	$ 8	$ 5	$ 2	$ 0	$ 1
37							
38	**Unamortized Deferred Charges**		**$ 126**	**$ 65**	**$ 46**	**$ 13**	**$ 2**
39		Energy	$ 128	$ 69	$ 45	$ 12	$ 2
40		Demand	$ (3)	$ (4)	$ 1	$ 1	$ (1)
41		Customer	$ 1	$ (0)	$ 1	$ 0	$ 1
42							
43	**Cash Working Capital**		**$ 48**	**$ 24**	**$ 18**	**$ 4**	**$ 2**
44		Energy	$ 17	$ 8	$ 7	$ 2	$ -
45		Demand	$ 19	$ 7	$ 9	$ 2	$ 1
46		Customer	$ 12	$ 9	$ 3	$ 0	$ 1
47							
48	**Total Utility Rate Base**		**$ 11,228**	**$ 5,188**	**$ 4,424**	**$ 1,024**	**$ 592**
49		Energy	$ 145	$ 78	$ 51	$ 14	$ 2
50		Demand	$ 7,787	$ 2,783	$ 3,644	$ 982	$ 378
51		Customer	$ 3,296	$ 2,327	$ 729	$ 27	$ 213

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
COST OF SERVICE SUMMARY - CLASSIFICATION (000's)

Schedule 4

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	**Operating & Maintenance Expense**		**$ 913**	**$ 500**	**$ 308**	**$ 58**	**$ 47**
2		Energy	$ 11	$ 6	$ 4	$ 1	$ 0
3		Demand	$ 293	$ 61	$ 171	$ 52	$ 8
4		Customer	$ 609	$ 433	$ 133	$ 5	$ 38
5							
6	**Property & Sundry Taxes**		**$ 139**	**$ 66**	**$ 54**	**$ 12**	**$ 7**
7		Energy	$ -	$ -	$ -	$ -	$ -
8		Demand	$ 92	$ 33	$ 43	$ 11	$ 4
9		Customer	$ 47	$ 33	$ 11	$ 0	$ 3
10							
11	**Depreciation Expense**		**$ 388**	**$ 186**	**$ 149**	**$ 33**	**$ 21**
12		Energy	$ -	$ -	$ -	$ -	$ -
13		Demand	$ 230	$ 77	$ 112	$ 31	$ 10
14		Customer	$ 158	$ 110	$ 37	$ 2	$ 10
15							
16	**Amortization Expense**		**$ 272**	**$ 123**	**$ 108**	**$ 25**	**$ 17**
17		Energy	$ 7	$ 4	$ 2	$ 1	$ 0
18		Demand	$ 219	$ 88	$ 95	$ 24	$ 12
19		Customer	$ 46	$ 31	$ 11	$ 0	$ 4
20							
21	**Other Operating Revenue**		**$ (26)**	**$ (17)**	**$ (7)**	**$ (1)**	**$ (1)**
22		Energy	$ -	$ -	$ -	$ -	$ -
23		Demand	$ (3)	$ -	$ (2)	$ (1)	$ -
24		Customer	$ (23)	$ (17)	$ (5)	$ (0)	$ (1)

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
COST OF SERVICE SUMMARY - CLASSIFICATION (000's)

Schedule 4

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
25							
26	**Income Tax**		**$ 75**	**$ 36**	**$ 28**	**$ 6**	**$ 4**
27		Energy	$ 0	$ 0	$ 0	$ 0	$ -
28		Demand	$ 50	$ 18	$ 23	$ 6	$ 3
29		Customer	$ 25	$ 18	$ 6	$ 0	$ 2
30							
31	**Earned Return**		**$ 728**	**$ 353**	**$ 275**	**$ 61**	**$ 40**
32		Energy	$ 1	$ 1	$ 0	$ 0	$ -
33		Demand	$ 483	$ 179	$ 221	$ 58	$ 24
34		Customer	$ 244	$ 173	$ 54	$ 2	$ 15
35							
36	**Total Cost of Service Margin**		**$ 2,489**	**$ 1,247**	**$ 914**	**$ 194**	**$ 134**
37		Energy	$ 19	$ 10	$ 7	$ 2	$ 0
38		Demand	$ 1,363	$ 457	$ 661	$ 183	$ 62
39		Customer	$ 1,107	$ 780	$ 246	$ 9	$ 72
40							
41	**Cost of Gas Sold (Including Gas Lost)**		**$ 673**	**$ 336**	**$ 264**	**$ 73**	**$ -**
42		Energy	$ 673	$ 336	$ 264	$ 73	$ -
43		Demand	$ -	$ -	$ -	$ -	$ -
44		Customer	$ -	$ -	$ -	$ -	$ -
45							
46	**Total Utility Revenue Requirement**		**$ 3,162**	**$ 1,583**	**$ 1,178**	**$ 267**	**$ 134**
47		Energy	$ 692	$ 346	$ 271	$ 75	$ 0
48		Demand	$ 1,363	$ 457	$ 661	$ 183	$ 62
49		Customer	$ 1,107	$ 780	$ 246	$ 9	$ 72

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
RATE BASE SUMMARY - FUNCTIONALIZATION (000's)

Schedule 5

Line No.	Particulars			Total		RATE 1		RATE 2.1		RATE 2.2		RATE 25 NON-BYPASS
1	Gas Supply Operations		$	17	$	8	$	7	$	2	$	-
2		Energy	$	17	$	8	$	7	$	2	$	-
3		Demand	$	-	$	-	$	-	$	-	$	-
4		Customer	$	-	$	-	$	-	$	-	$	-
5												
6	Transmission		$	5,780	$	2,671	$	2,234	$	513	$	362
7		Energy	$	-	$	-	$	-	$	-	$	-
8		Demand	$	5,780	$	2,671	$	2,234	$	513	$	362
9		Customer	$	-	$	-	$	-	$	-	$	-
10												
11	Distribution		$	5,309	$	2,444	$	2,140	$	496	$	228
12		Energy	$	-	$	-	$	-	$	-	$	-
13		Demand	$	2,006	$	112	$	1,410	$	469	$	15
14		Customer	$	3,303	$	2,332	$	730	$	27	$	213
15												
16	Marketing		$	73	$	42	$	23	$	6	$	2
17		Energy	$	71	$	41	$	22	$	6	$	2
18		Demand	$	-	$	-	$	-	$	-	$	-
19		Customer	$	2	$	2	$	0	$	0	$	0
20												
21	Customer Accounting		$	48	$	22	$	21	$	6	$	(0)
22		Energy	$	57	$	28	$	22	$	6	$	-
23		Demand	$	-	$	-	$	-	$	-	$	-
24		Customer	$	(9)	$	(7)	$	(2)	$	(0)	$	(0)
25												
26	**Total Utility Rate Base**		$	11,228	$	5,188	$	4,424	$	1,024	$	592
27		Energy	$	145	$	78	$	51	$	14	$	2
28		Demand	$	7,787	$	2,783	$	3,644	$	982	$	378
29		Customer	$	3,296	$	2,327	$	729	$	27	$	213

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
COST OF SERVICE SUMMARY - FUNCTIONALIZATION (000's)

Schedule 6

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	Gas Supply Operations		**$ 8**	**$ 4**	**$ 3**	**$ 1**	**$ -**
2		Energy	$ 8	$ 4	$ 3	$ 1	$ -
3		Demand	$ -	$ -	$ -	$ -	$ -
4		Customer	$ -	$ -	$ -	$ -	$ -
5							
6	Transmission		**$ 831**	**$ 384**	**$ 321**	**$ 74**	**$ 52**
7		Energy	$ -	$ -	$ -	$ -	$ -
8		Demand	$ 831	$ 384	$ 321	$ 74	$ 52
9		Customer	$ -	$ -	$ -	$ -	$ -
10							
11	Distribution		**$ 1,491**	**$ 738**	**$ 558**	**$ 118**	**$ 77**
12		Energy	$ -	$ -	$ -	$ -	$ -
13		Demand	$ 532	$ 73	$ 340	$ 109	$ 10
14		Customer	$ 959	$ 665	$ 218	$ 9	$ 67
15							
16	Marketing		**$ 94**	**$ 71**	**$ 19**	**$ 1**	**$ 3**
17		Energy	$ 11	$ 6	$ 3	$ 1	$ 0
18		Demand	$ -	$ -	$ -	$ -	$ -
19		Customer	$ 83	$ 65	$ 16	$ 0	$ 2
20							
21	Customer Accounting		**$ 65**	**$ 51**	**$ 12**	**$ 0**	**$ 2**
22		Energy	$ -	$ -	$ -	$ -	$ -
23		Demand	$ -	$ -	$ -	$ -	$ -
24		Customer	$ 65	$ 51	$ 12	$ 0	$ 2
25							
26	**Total Utility Cost of Service**		**$ 2,489**	**$ 1,247**	**$ 914**	**$ 194**	**$ 134**
27		Energy	$ 19	$ 10	$ 7	$ 2	$ 0
28		Demand	$ 1,363	$ 457	$ 661	$ 183	$ 62
29		Customer	$ 1,107	$ 780	$ 246	$ 9	$ 72

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
CLASSIFICATION SUMMARY (000's)

Schedule 7

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	Billing Determinants						
2							
3	Sales Volume (TJ)		560	260	204	57	40
4	Midstream Sales Volume (TJ)		520	260	204	57	-
5	Commodity Sales Volume (TJ)		520	260	204	57	-
6	Average No. of Customers		2,449	1,961	480	7	1
7							
8	Cost of Service Margin		**$ 2,489**	**$ 1,247**	**$ 914**	**$ 194**	**$ 134**
9		Energy	$ 19	$ 10	$ 7	$ 2	$ 0
10	Unit Energy Charge ($/GJ)			0.04	0.03	0.03	0.01
11		Demand	$ 1,363	$ 457	$ 661	$ 183	$ 62
12	Unit Demand Charge ($/GJ)			1.76	3.25	3.22	1.57
13		Customer	$ 1,107	$ 780	$ 246	$ 9	$ 72
14	Unit Customer Charge ($/Cust/Day)			1.09	1.40	3.69	196.07
15							
16	Unit Cost of Service Margin ($/GJ)			4.798	4.487	3.421	3.389
17							
18	Cost of Gas - Commodity		**$ 673**	**$ 336**	**$ 264**	**$ 73**	**$ -**
19		Energy	$ 673	$ 336	$ 264	$ 73	$ -
20		Demand	$ -	$ -	$ -	$ -	$ -
21		Customer	$ -	$ -	$ -	$ -	$ -
22	Unit Cost of Gas - Commodity ($/GJ)			1.293	1.296	1.287	0.000
23							
24	Total Utility Cost of Service		**$ 3,162**	**$ 1,583**	**$ 1,178**	**$ 267**	**$ 134**
25		Energy	$ 692	$ 346	$ 271	$ 75	$ 0
26		Demand	$ 1,363	$ 457	$ 661	$ 183	$ 62
27		Customer	$ 1,107	$ 780	$ 246	$ 9	$ 72
28	Unit Cost of Service ($/GJ)			6.091	5.783	4.708	3.389
29							
30	Total Revenues @ Proposed Rates		**$ 3,162**	**$ 1,434**	**$ 1,276**	**$ 302**	**$ 150**
31	Unit Rate ($/GJ)			5.516	6.265	5.330	3.800
32							
33	Total Revenue Margin @ Proposed Rates		**$ 2,489**	**$ 1,098**	**$ 1,012**	**$ 229**	**$ 150**
34	Unit Rate ($/GJ)			4.223	4.969	4.042	3.800

Appendix 13-5

FORT NELSON FINAL COSA FINANCIAL SCHEDULES

EVIDENTIARY UPDATE DATED APRIL 7, 2017

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year

Schedule 1

SUMMARY (000's)

Line No.	Particulars	Reference	Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	**REVENUE TO COST**						
2	Revenue at 2018 Approved Rates [1,2]	Line 2 + Line 3	**$ 3,136**	**$ 1,423**	**$ 1,170**	**$ 397**	**$ 147**
3	Revenue Margin at 2018 Approved Rates [1,2]		$ 2,463	$ 1,087	$ 906	$ 324	$ 147
4	Cost of Gas at 2018 Approved Rates [2]		$ 673	$ 336	$ 264	$ 73	$ -
5							
6	**COST OF SERVICE**						
7	Total Utility Cost of Service	Line 7 + Line 8	**$ 3,162**	**$ 1,579**	**$ 1,101**	**$ 349**	**$ 133**
8	Allocated Cost of Service Margin		$ 2,489	$ 1,243	$ 837	$ 276	$ 133
9	Total Cost of Gas		$ 673	$ 336	$ 264	$ 73	$ -
10							
11	**SURPLUS / DEFICIT**						
12	Total Surplus / (Deficit)	Line 2 - Line 7	$ (26)				
13	% Increase to Equal Allocated Costs	- Line 12 / Line 3	1.0%				
14							
15	**REVENUES (adjusted to equal COS)**						
16	Adjusted Revenue at 2018 Approved Rates [1]	Line 4 + Line 17	**$ 3,162**	**$ 1,434**	**$ 1,179**	**$ 400**	**$ 148**
17	Adjusted Margin at 2018 Approved Rates [1]	Line 3 x (1 + Line 13)	$ 2,489	$ 1,098	$ 915	$ 327	$ 148
18							
19	REVENUES (adjusted for R/C ratio's)	Line 16	**$ 3,162**	**$ 1,434**	**$ 1,179**	**$ 400**	**$ 148**
20	COST OF SERVICE (adjusted for R/C ratio's)	Line 7	**$ 3,162**	**$ 1,579**	**$ 1,101**	**$ 349**	**$ 133**
21							
22	**REVENUE TO COST RATIO**						
23	Revenue to Cost Ratio before Rebalancing	Line 19 / Line 20	**100.0%**	**90.9%**	**107.2%**	**114.5%**	**111.0%**
24							
25	**REVENUE REBALANCING**						
26	Adjustment		$ -	$ 16	$ -	$ (16)	$ -
27	Total Adjusted Revenue	Line 16 + Line 26	**$ 3,162**	**$ 1,450**	**$ 1,179**	**$ 384**	**$ 148**
28	Total Adjusted Margin	Line 17 + Line 26	$ 2,489	$ 1,114	$ 915	$ 311	$ 148
29							
30	**REVENUE TO COST RATIO AFTER REBALANCING**						
31	Margin to Cost Ratio	Line 28 / Line 8	**100.0%**	**89.7%**	**109.4%**	**112.6%**	**111.0%**
32	Revenue to Cost Ratio	Line 27 / Line 20	**100.0%**	**91.9%**	**107.2%**	**109.9%**	**111.0%**
33							
34	**Notes:**						
35	1. Includes Test Year Adjustment as described in Section 13.4.1.3						
36	2. G-162-16						
37	3. Test Year adjustment as described in Section 13.4.1.3						

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
FUNCTIONALIZATION (000's)

Schedule 2

Line No.	Particulars	Total	Gas Supply Operations	Transmission	Distribution	Marketing	Customer Accounting
1	Total Operating & Maintenance Expense	$ 913	$ 7	$ 79	$ 650	$ 82	$ 95
2	Property & Sundry Taxes	$ 139	$ -	$ 69	$ 70	$ -	$ -
3	Depreciation Expense	$ 388	$ -	$ 149	$ 239	$ -	$ -
4	Amortization Expense	$ 272	$ -	$ 120	$ 161	$ 7	$ (16)
5	Other Operating Revenue	$ (26)	$ -	$ -	$ (9)	$ -	$ (17)
6	Income Tax	$ 75	$ 0	$ 39	$ 35	$ 0	$ 0
7	Earned Return	$ 728	$ 1	$ 375	$ 344	$ 5	$ 3
8	**Total Cost of Service Margin**	**$ 2,489**	**$ 8**	**$ 831**	**$ 1,491**	**$ 94**	**$ 65**
9							
10	Cost of Gas - Commodity	$ 673	$ 673	$ -	$ -	$ -	$ -
11	**Total Utility Revenue Requirement**	**$ 3,162**	**$ 681**	**$ 831**	**$ 1,491**	**$ 94**	**$ 65**

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year

Schedule 3

RATE BASE SUMMARY - CLASSIFICATION (000's)

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	**Gas Plant in Service**						
2	Total Gas Plant in Service		**$ 16,150**	**$ 7,541**	**$ 5,683**	**$ 1,989**	**$ 937**
3		Energy	$ -	$ -	$ -	$ -	$ -
4		Demand	$ 10,203	$ 3,461	$ 4,394	$ 1,878	$ 470
5		Customer	$ 5,946	$ 4,079	$ 1,289	$ 111	$ 467
6							
7	Total Accumulated Depreciation		**$ (4,549)**	**$ (2,198)**	**$ (1,528)**	**$ (504)**	**$ (319)**
8		Energy	$ -	$ -	$ -	$ -	$ -
9		Demand	$ (2,184)	$ (630)	$ (1,012)	$ (456)	$ (85)
10		Customer	$ (2,365)	$ (1,568)	$ (515)	$ (48)	$ (234)
11							
12	TOTAL Net Plant		**$ 11,601**	**$ 5,342**	**$ 4,156**	**$ 1,485**	**$ 618**
13		Energy	$ -	$ -	$ -	$ -	$ -
14		Demand	$ 8,019	$ 2,831	$ 3,382	$ 1,422	$ 384
15		Customer	$ 3,581	$ 2,511	$ 773	$ 63	$ 234
16							
17	**Contributions In Aid of Construction**						
18	Total Gas Plant in Service		**$ (1,326)**	**$ (623)**	**$ (467)**	**$ (163)**	**$ (73)**
19		Energy	$ -	$ -	$ -	$ -	$ -
20		Demand	$ (529)	$ (76)	$ (294)	$ (148)	$ (10)
21		Customer	$ (797)	$ (547)	$ (173)	$ (15)	$ (63)
22							
23	Total Accumulated Depreciation		**$ 744**	**$ 350**	**$ 262**	**$ 91**	**$ 40**
24		Energy	$ -	$ -	$ -	$ -	$ -
25		Demand	$ 253	$ 13	$ 156	$ 82	$ 2
26		Customer	$ 491	$ 337	$ 106	$ 9	$ 39

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year

Schedule 3

RATE BASE SUMMARY - CLASSIFICATION (000's)

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
27							
28	TOTAL Net Plant		**$ (582)**	**$ (273)**	**$ (205)**	**$ (71)**	**$ (33)**
29		Energy	$ -	$ -	$ -	$ -	$ -
30		Demand	$ (276)	$ (63)	$ (139)	$ (66)	$ (9)
31		Customer	$ (306)	$ (210)	$ (66)	$ (6)	$ (24)
32							
33	**Work in Process, no AFUDC**		**$ 35**	**$ 16**	**$ 12**	**$ 4**	**$ 2**
34		Energy	$ -	$ -	$ -	$ -	$ -
35		Demand	$ 27	$ 11	$ 11	$ 4	$ 2
36		Customer	$ 8	$ 5	$ 2	$ 0	$ 1
37							
38	**Unamortized Deferred Charges**		**$ 126**	**$ 65**	**$ 41**	**$ 18**	**$ 2**
39		Energy	$ 128	$ 69	$ 39	$ 17	$ 2
40		Demand	$ (3)	$ (4)	$ 1	$ 1	$ (1)
41		Customer	$ 1	$ (0)	$ 1	$ 0	$ 1
42							
43	**Cash Working Capital**		**$ 48**	**$ 24**	**$ 16**	**$ 6**	**$ 2**
44		Energy	$ 17	$ 8	$ 6	$ 3	$ -
45		Demand	$ 19	$ 7	$ 8	$ 3	$ 1
46		Customer	$ 12	$ 9	$ 3	$ 0	$ 1
47							
48	**Total Utility Rate Base**		**$ 11,228**	**$ 5,175**	**$ 4,020**	**$ 1,442**	**$ 591**
49		Energy	$ 145	$ 78	$ 45	$ 20	$ 2
50		Demand	$ 7,787	$ 2,783	$ 3,262	$ 1,364	$ 378
51		Customer	$ 3,296	$ 2,315	$ 712	$ 58	$ 212

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
COST OF SERVICE SUMMARY - CLASSIFICATION (000's)

Schedule 4

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	**Operating & Maintenance Expense**		**$ 913**	**$ 498**	**$ 284**	**$ 84**	**$ 47**
2		Energy	$ 11	$ 6	$ 3	$ 2	$ 0
3		Demand	$ 293	$ 61	$ 151	$ 73	$ 8
4		Customer	$ 609	$ 431	$ 130	$ 10	$ 38
5							
6	**Property & Sundry Taxes**		**$ 139**	**$ 66**	**$ 49**	**$ 17**	**$ 7**
7		Energy	$ -	$ -	$ -	$ -	$ -
8		Demand	$ 92	$ 33	$ 38	$ 16	$ 4
9		Customer	$ 47	$ 33	$ 11	$ 1	$ 3
10							
11	**Depreciation Expense**		**$ 388**	**$ 185**	**$ 136**	**$ 46**	**$ 20**
12		Energy	$ -	$ -	$ -	$ -	$ -
13		Demand	$ 230	$ 77	$ 100	$ 43	$ 10
14		Customer	$ 158	$ 109	$ 36	$ 3	$ 10
15							
16	**Amortization Expense**		**$ 272**	**$ 122**	**$ 98**	**$ 35**	**$ 17**
17		Energy	$ 7	$ 4	$ 2	$ 1	$ 0
18		Demand	$ 219	$ 88	$ 85	$ 34	$ 12
19		Customer	$ 46	$ 30	$ 11	$ 1	$ 4
20							
21	**Other Operating Revenue**		**$ (26)**	**$ (17)**	**$ (6)**	**$ (1)**	**$ (1)**
22		Energy	$ -	$ -	$ -	$ -	$ -
23		Demand	$ (3)	$ -	$ (2)	$ (1)	$ -
24		Customer	$ (23)	$ (17)	$ (5)	$ (0)	$ (1)

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
COST OF SERVICE SUMMARY - CLASSIFICATION (000's)

Schedule 4

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
25							
26	**Income Tax**		**$ 75**	**$ 36**	**$ 26**	**$ 9**	**$ 4**
27		Energy	$ 0	$ 0	$ 0	$ 0	$ -
28		Demand	$ 50	$ 18	$ 20	$ 8	$ 3
29		Customer	$ 25	$ 18	$ 5	$ 0	$ 2
30							
31	**Earned Return**		**$ 728**	**$ 352**	**$ 251**	**$ 86**	**$ 40**
32		Energy	$ 1	$ 1	$ 0	$ 0	$ -
33		Demand	$ 483	$ 179	$ 198	$ 81	$ 24
34		Customer	$ 244	$ 172	$ 53	$ 4	$ 15
35							
36	**Total Cost of Service Margin**		**$ 2,489**	**$ 1,243**	**$ 837**	**$ 276**	**$ 133**
37		Energy	$ 19	$ 10	$ 6	$ 3	$ 0
38		Demand	$ 1,363	$ 457	$ 591	$ 254	$ 62
39		Customer	$ 1,107	$ 776	$ 240	$ 20	$ 71
40							
41	**Cost of Gas Sold (Including Gas Lost)**		**$ 673**	**$ 336**	**$ 264**	**$ 73**	**$ -**
42		Energy	$ 673	$ 336	$ 264	$ 73	$ -
43		Demand	$ -	$ -	$ -	$ -	$ -
44		Customer	$ -	$ -	$ -	$ -	$ -
45							
46	**Total Utility Revenue Requirement**		**$ 3,162**	**$ 1,579**	**$ 1,101**	**$ 349**	**$ 133**
47		Energy	$ 692	$ 346	$ 270	$ 76	$ 0
48		Demand	$ 1,363	$ 457	$ 591	$ 254	$ 62
49		Customer	$ 1,107	$ 776	$ 240	$ 20	$ 71

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
RATE BASE SUMMARY - FUNCTIONALIZATION (000's)

Schedule 5

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	Gas Supply Operations		**$ 17**	**$ 8**	**$ 6**	**$ 3**	**$ -**
2		Energy	$ 17	$ 8	$ 6	$ 3	$ -
3		Demand	$ -	$ -	$ -	$ -	$ -
4		Customer	$ -	$ -	$ -	$ -	$ -
5							
6	Transmission		**$ 5,780**	**$ 2,671**	**$ 2,031**	**$ 717**	**$ 362**
7		Energy	$ -	$ -	$ -	$ -	$ -
8		Demand	$ 5,780	$ 2,671	$ 2,031	$ 717	$ 362
9		Customer	$ -	$ -	$ -	$ -	$ -
10							
11	Distribution		**$ 5,309**	**$ 2,432**	**$ 1,945**	**$ 705**	**$ 227**
12		Energy	$ -	$ -	$ -	$ -	$ -
13		Demand	$ 2,006	$ 112	$ 1,232	$ 647	$ 15
14		Customer	$ 3,303	$ 2,320	$ 713	$ 58	$ 212
15							
16	Marketing		**$ 73**	**$ 42**	**$ 20**	**$ 9**	**$ 2**
17		Energy	$ 71	$ 41	$ 20	$ 9	$ 2
18		Demand	$ -	$ -	$ -	$ -	$ -
19		Customer	$ 2	$ 2	$ 0	$ 0	$ 0
20							
21	Customer Accounting		**$ 48**	**$ 22**	**$ 18**	**$ 9**	**$ (0)**
22		Energy	$ 57	$ 28	$ 20	$ 9	$ -
23		Demand	$ -	$ -	$ -	$ -	$ -
24		Customer	$ (9)	$ (7)	$ (2)	$ (0)	$ (0)
25							
26	**Total Utility Rate Base**		**$ 11,228**	**$ 5,175**	**$ 4,020**	**$ 1,442**	**$ 591**
27		Energy	$ 145	$ 78	$ 45	$ 20	$ 2
28		Demand	$ 7,787	$ 2,783	$ 3,262	$ 1,364	$ 378
29		Customer	$ 3,296	$ 2,315	$ 712	$ 58	$ 212

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
COST OF SERVICE SUMMARY - FUNCTIONALIZATION (000's)

Schedule 6

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	Gas Supply Operations		**$ 8**	**$ 4**	**$ 3**	**$ 1**	**$ -**
2		Energy	$ 8	$ 4	$ 3	$ 1	$ -
3		Demand	$ -	$ -	$ -	$ -	$ -
4		Customer	$ -	$ -	$ -	$ -	$ -
5							
6	Transmission		**$ 831**	**$ 384**	**$ 292**	**$ 103**	**$ 52**
7		Energy	$ -	$ -	$ -	$ -	$ -
8		Demand	$ 831	$ 384	$ 292	$ 103	$ 52
9		Customer	$ -	$ -	$ -	$ -	$ -
10							
11	Distribution		**$ 1,491**	**$ 733**	**$ 511**	**$ 170**	**$ 77**
12		Energy	$ -	$ -	$ -	$ -	$ -
13		Demand	$ 532	$ 73	$ 299	$ 151	$ 10
14		Customer	$ 959	$ 661	$ 213	$ 19	$ 67
15							
16	Marketing		**$ 94**	**$ 71**	**$ 19**	**$ 2**	**$ 3**
17		Energy	$ 11	$ 6	$ 3	$ 1	$ 0
18		Demand	$ -	$ -	$ -	$ -	$ -
19		Customer	$ 83	$ 65	$ 16	$ 1	$ 2
20							
21	Customer Accounting		**$ 65**	**$ 51**	**$ 12**	**$ 0**	**$ 2**
22		Energy	$ -	$ -	$ -	$ -	$ -
23		Demand	$ -	$ -	$ -	$ -	$ -
24		Customer	$ 65	$ 51	$ 12	$ 0	$ 2
25							
26	**Total Utility Cost of Service**		**$ 2,489**	**$ 1,243**	**$ 837**	**$ 276**	**$ 133**
27		Energy	$ 19	$ 10	$ 6	$ 3	$ 0
28		Demand	$ 1,363	$ 457	$ 591	$ 254	$ 62
29		Customer	$ 1,107	$ 776	$ 240	$ 20	$ 71

FORTISBC ENERGY INC. - FORT NELSON SERVICE AREA
Fully Distributed Cost of Service Allocation Study
Rate Design Filing_Common Rates_ 2018 Test Year
CLASSIFICATION SUMMARY (000's)

Schedule 7

Line No.	Particulars		Total	RATE 1	RATE 2.1	RATE 2.2	RATE 25 NON-BYPASS
1	Billing Determinants						
2							
3	Sales Volume (TJ)		560	260	180	80	40
4	Midstream Sales Volume (TJ)		520	260	180	80	-
5	Commodity Sales Volume (TJ)		520	260	180	80	-
6	Average No. of Customers		2,449	1,961	472	15	1
7							
8	**Cost of Service Margin**		**$ 2,489**	**$ 1,243**	**$ 837**	**$ 276**	**$ 133**
9		Energy	$ 19	$ 10	$ 6	$ 3	$ 0
10	Unit Energy Charge ($/GJ)			0.040	0.032	0.032	0.007
11		Demand	$ 1,363	$ 457	$ 591	$ 254	$ 62
12	Unit Demand Charge ($/GJ)			1.757	3.273	3.170	1.568
13		Customer	$ 1,107	$ 776	$ 240	$ 20	$ 71
14	Unit Customer Charge ($/Cust/Day)			1.083	1.394	3.657	195.114
15							
16	Unit Cost of Service Margin ($/GJ)			4.781	4.637	3.453	3.380
17							
18	**Cost of Gas - Commodity**		**$ 673**	**$ 336**	**$ 264**	**$ 73**	**$ -**
19		Energy	$ 673	$ 336	$ 264	$ 73	$ -
20		Demand	$ -	$ -	$ -	$ -	$ -
21		Customer	$ -	$ -	$ -	$ -	$ -
22	Unit Cost of Gas - Commodity ($/GJ)			1.293	1.463	0.913	0.000
23							
24	**Total Utility Cost of Service**		**$ 3,162**	**$ 1,579**	**$ 1,101**	**$ 349**	**$ 133**
25		Energy	$ 692	$ 346	$ 270	$ 76	$ 0
26		Demand	$ 1,363	$ 457	$ 591	$ 254	$ 62
27		Customer	$ 1,107	$ 776	$ 240	$ 20	$ 71
28	Unit Cost of Service ($/GJ)			6.074	6.101	4.366	3.380
29							
30	**Total Revenues @ Proposed Rates**		**$ 3,162**	**$ 1,450**	**$ 1,179**	**$ 384**	**$ 148**
31	Unit Rate ($/GJ)			5.581	6.537	4.800	3.753
32							
33	**Total Revenue Margin @ Proposed Rates**		**$ 2,489**	**$ 1,114**	**$ 915**	**$ 311**	**$ 148**
34	Unit Rate ($/GJ)			4.288	5.074	3.887	3.753

Appendix 13-6

PROPOSED FORT NELSON GAS TARIFF EFFECTIVE JUNE 1, 2018 (BLACKLINED)

EVIDENTIARY UPDATE DATED APRIL 7, 2017

Rate Schedule 1: Residential Service

Available

This Rate Schedule is available to Customers in the Fort Nelson Service Area only.

Applicable

This Rate Schedule is applicable to firm Gas supplied at one Premise for use in approved appliances for all residential applications in single-family residences, separately metered single-family townhouses, rowhouses, condominiums, duplexes and apartments and single metered apartment blocks with four or less apartments. This Rate Schedule is also applicable to thermal energy supplied by a Gas fired hydronic heating system (where a Hydronic Heating System is the primary heating source) and measured by a thermal meter for one Premise of a Vertical Subdivision where the thermal meters are used to apportion the Gigajoules of Gas consumed for hydronic heating.

Table of Charges

	Fort Nelson Service Area
Delivery Margin Related Charges	
1. **Basic Charge** per Day	**$ 0.3003**
2. Delivery Charge per Gigajoule	$ 3.512
3. Rider 5 per Gigajoule	$ X.XXX
Subtotal of per Gigajoule **Delivery** Margin Related Charges	**$ X.XXX**
Commodity Related Charges	
4. Storage and Transport Charge per Gigajoule	$ X.XXX
5. **Cost of Gas** (Commodity Cost Recovery Charge) per Gigajoule	**$ X.XXX**
Subtotal of per Gigajoule **Commodity** Related Charges	**$ X.XXX**

Deleted: GENERAL TERMS AND CONDITIONS

Deleted: Classification and Rates¶
Domestic

Deleted: (a) Availability¶
To

Deleted: gas

Deleted: One (1) point of delivery and through One (1) meter for

Deleted: uses

Deleted: common areas serving strata lot owners of residential condominium complexes.¶
¶
Option A

Deleted: any customer qualifying for Domestic Service

Deleted: space heating equipment utilized on the premises was purchased and installed with the assistance of a promotional incentive provided by Company. Subsequent to providing the promotional incentive, Option A is applicable:¶
¶
<#>for a term of 120 Months,¶
¶
to all gas bills with

Deleted: billing period of approximately 30 days.¶
¶
Option B is applicable to any customer qualifying for Domestic Service

Deleted: primary space heating equipment utilized on the premises was not purchased and installed with the assistance of a promotional incentive provided by Company.¶
¶
(b) Monthly Rate¶
Rate 1¶
Option A: Where the customer's primary space

Deleted: equipment utilized on the premises was purchased and installed with the assistance of a promotional incentive provided by the Company:

Deleted: Minimum daily charge to include ¶
<object>the first 2 Gigajoules/month prorated¶
on a daily basis $0.5868[1] plus $0.0391¶
times the amount of the¶
promotional incentive¶
divided by $100.¶
<object>¶ ... [1]

Deleted: G-162-16/G-173-16/G-178-16

Deleted: -

Deleted: January 1, 2017

Deleted: December 20, 2016

Deleted: *Original signed by Laurel Ross*

Deleted: Fourteenth Revision of

Evidentiary Update, dated April 7, 2017

Rate Schedule 2: Small Commercial Service

Available

This Rate Schedule is available to Customers in the Fort Nelson Service Area only.

Applicable

This Rate Schedule is applicable to Customers with a normalized annual consumption at one Premises of less than 2,000 Gigajoules of firm Gas, for use in approved appliances in commercial, institutional or small industrial operations.

Table of Charges

	Fort Nelson Service Area
Delivery Margin Related Charges	
1. **Basic Charge** per Day	**$ 1.2008**
2. Delivery Charge per Gigajoule	$ 3.989
3. Rider 5 per Gigajoule	$ X.XXX
Subtotal of per Gigajoule **Delivery** Margin Related Charges	**$ X.XXX**
Commodity Related Charges	
4. Storage and Transport Charge per Gigajoule	$ X.XXX
5. **Cost of Gas** (Commodity Cost Recovery Charge) per Gigajoule	**$ X.XXX**
Subtotal of per Gigajoule **Commodity** Related Charges	**$ X.XXX**

Order No.: Issued By: Diane Roy, Vice President, Regulatory Affairs

Effective Date: June 1, 2018 Accepted for Filing:______________________

BCUC Secretary: ______________________________

Deleted: GENERAL TERMS AND CONDITIONS

Deleted: General

Deleted: (a) Availability¶

Deleted: to all consumers.

Deleted: ¶
(b) Monthly Rate¶
General Service¶

Deleted: 2.1:

Deleted: customers who have consumed

Deleted: 6

Deleted: in the twelve months ended with the most recent October billing

Deleted: ¶
Minimum daily service charge¶
<object>to include the first 2 Gigajoules/month prorated¶
on a daily basis $1.4113[1]¶
<object>¶
Next 298 Gigajoules in any month @ $6.130[1] per Gigajoule¶
Excess of 300 Gigajoules in any month @ $6.003[1] per Gigajoule¶
¶
Rate 2.2: Applicable to customers who have consumed a quantity of gas equal to or greater than 6,000 Gigajoules in the twelve months ended with the most recent October billing.¶
¶
Minimum monthly service charge¶
<object>to include the first 2 Gigajoules/month prorated¶
on a daily basis $1.4113[1]¶
<object><object>¶
Next 298 Gigajoules in any month @ $6.130[1] per Gigajoule¶
Excess of 300 Gigajoules in any month @ $6.003[1] per Gigajoule¶
¶
With respect to customers who do not have a twelve-month consumption record, the Company shall assign the applicable rate based on a mutually agreed upon annual volume forecast.¶
<object>¶
¶
¶
Notes:¶
¶
<object>1. Rate includes the Revenue Stabilization Adjustment Amount applicab ... [1]

Deleted: G-162-16/G-173-16/G-178-16

Deleted: -

Deleted: January 1, 2017

Deleted: December 20, 2016

Deleted: *Original signed by Laurel Ross*

Deleted: Eighteenth Revision of

Evidentiary Update, dated April 7, 2017

Rate Schedule 3: Large Commercial Service

Available

This Rate Schedule is available to Customers in the Fort Nelson Service Area only.

Applicable

This Rate Schedule is applicable to Customers with a normalized annual consumption at one Premises of greater than 2,000 Gigajoules of firm Gas, for use in approved appliances in commercial, institutional or small industrial operations.

Table of Charges

	Fort Nelson Service Area
Delivery Margin Related Charges	
1. **Basic Charge** per Day	**$ 3.1581**
2. Delivery Charge per Gigajoule	$ 3.631
3. Rider 5 per Gigajoule	$ X.XXX
Subtotal of per Gigajoule **Delivery** Margin Related Charges	**$ X.XXX**
Commodity Related Charges	
4. Storage and Transport Charge per Gigajoule	$ X.XXX
5. **Cost of Gas** (Commodity Cost Recovery Charge) per Gigajoule	**$ X.XXX**
Subtotal of per Gigajoule **Commodity** Related Charges	**$ X.XXX**

Deleted: GENERAL TERMS AND CONDITIONS

Deleted: Industrial

**Deleted: (a) Availability¶
For industrial use only. To firm gas, no portion of which shall be re-sold, supplied at one point of delivery and through one meter.¶
¶
It may be supplied to tenants of the consumer on the consumer's premises through the consumer's system.
Consumers under this rate may be restricted by the Company to a total of 790 GJ per day, at the discretion of the Company.¶
¶
(b) Monthly Rate¶**

Deleted: 3.1:

Deleted: to customers

Deleted: forecasted

Deleted: for the ensuing calendar year of a quantity of gas less

Deleted: 96

Deleted: <#>Delivery Charge per Gigajoule¶
<object>¶
First 20 Gigajoules in any month @ $4.186¶
Next 260 Gigajoules in any month @ $3.884¶
Excess over 280 Gigajoules in any month @ $3.179¶
<object>¶
<#>Gas Cost Recovery Charge per Gigajoule @ $ 2.086¶
¶
<#>Minimum Monthly Delivery Charge $ 1,826.00¶
<object>¶
<#>Rider 5 per Gigajoule $ 0.268¶
¶
Rate 3.2: Applicable to customers with forecasted consumption for the ensuing calendar year of a quantity of gas equal to or in excess of 96,000 Gigajoules, but less than 360,000 Gigajoules.¶
¶
<#>Delivery Charge per Gigajoule¶
<object>¶
First 20 Gigajoules in any month @ $4.186¶
Next 260 Gigajoules in any month @ $3.884¶
Excess over 280 Gigajoules in any month @ $3.179¶ ... [1]

Deleted: G-162-16/G-173-16/G-178-16

Deleted: -

Deleted: January 1, 2017

Deleted: December 20, 2016

Deleted: *Original signed by Laurel Ross*

Deleted: Fourteenth Revision of

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Evidentiary Update, dated April 7, 2017