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November 19, 2018

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

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

Dear Mr. Wruck:

Re: FortisBC Energy Inc. (FEI)

Project No. 1598970

2019 and 2020 Revenue Requirements and Rates Application for the Fort Nelson Service Area (the Application)

Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 1

On September 4, 2018, FEI filed the Application referenced above. In accordance with BCUC Order G-171-18 setting out the Regulatory Timetable for the review of the Application, FEI respectfully submits the attached response to BCUC IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

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A. REVENUE REQUIREMENTS AND RATES

1.0 Reference: REVENUE REQUIREMENT AND RATES

Fortis BC Energy Inc. – Fort Nelson Service Area 2019–2020 Revenue Requirements Application (Application), Exhibit B-1, Section 2.4, p. 13, Table 2-4

Postage stamp rates

On page 13 of the Application, FortisBC Energy Inc. (FEI) provides the following table:

Table 2-4: Comparison between FEI and FEFN Delivery Rates[11,12]

	FEI Proposed Rate (2019)	Fort Nelson Proposed Rates (2019)	Difference	FN/FEI	Fort Nelson Proposed Rates (2020)	Difference	FN/FEI
Rate Schedule 1							
Basic Charge/Day	$ 0.3890	$ 0.3701	$ (0.0189)		$ 0.3701	$ (0.0189)	
Delivery Charge/GJ	$ 4.370	$ 3.712	$ (0.658)		$ 4.093	$ (0.277)	
Annual Usage (GJ)	125	125			125		
Effective Rate/GJ	**$ 5.51**	**$ 4.79**	**$ (0.71)**	(13%)	**$ 5.17**	**$ (0.33)**	(6%)
Rate Schedule 2							
Basic Charge/Day	$ 0.8161	$ 1.2151	$ 0.3990		$ 1.2151	$ 0.3990	
Delivery Charge/GJ	$ 3.523	$ 3.996	$ 0.473		$ 4.435	$ 0.912	
Annual Usage (GJ)	349	349			349		
Effective Rate/GJ	**$ 4.38**	**$ 5.27**	**$ 0.89**	20%	**$ 5.71**	**$ 1.33**	30%
Rate Schedule 3							
Basic Charge/Day	$ 4.3538	$ 3.6845	$ (0.6693)		$ 3.6845	$ (0.6693)	
Delivery Charge/GJ	$ 2.939	$ 3.492	$ 0.553		$ 3.821	$ 0.882	
Annual Usage (GJ)	3,164	3,164			3,164		
Effective Rate/GJ	**$ 3.44**	**$ 3.92**	**$ 0.48**	14%	**$ 4.25**	**$ 0.80**	23%
Rate Schedule 25							
Admin Charge/Mth	$ 78.00	$ 39.00			$ 39.00		
Basic Charge/Mth	$ 587.00	$ 600.00			$ 600.00		
Demand Charge/GJ/Mth	$ 20.077	$ 31.785	11.708		$ 34.449	14.372	
Delivery Charge/GJ	$ 0.825	$ 1.053	0.228		$ 1.141	0.316	
Contract Demand	293	293			293		
Annual Usage (GJ)	41,500	41,500			41,500		
Effective Rate/GJ	**$ 2.72**	**$ 3.93**	**$ 1.21**	45%	**$ 4.24**	**$ 1.53**	56%

In footnote 12, FEI states that the "FEI Proposed Rate (2019)" is before the changes to FEI's rates resulting from the Rate Design Application (RDA) Decision.

On page 13 of the Application, FEI further states: "Given that there is still a rate impact that would be experienced by FEFN's residential customers from moving to FEI's rates, and that FEI has not yet filed for approval of 2020 rates, FEI is not proposing to postage stamp Fort Nelson rates in this Application."

1.1 Please update Table 2-4 with the "FEI Proposed Rate (2019)" after the changes to FEI's rates resulting from the RDA Decision.

Response:

Please see the table below for the updated comparison between FEI's estimated 2019 delivery rates and the proposed FEFN 2019/2020 delivery rates. It is to be noted that the proposed FEFN 2019/2020 delivery rates shown in the table below include the changes listed in the

Evidentiary Update for FEFN, filed on November 19, 2018. Additionally, the FEI's estimated 2019 delivery rates shown in the table below include the changes resulting from the RDA decision and the proposed 1.1 percent delivery rate increase that was filed by FEI on October 23, 2018.

	FEI Estimated Rate (2019)	Fort Nelson Proposed Rates (2019)	Difference	FN/FEI	Fort Nelson Proposed Rates (2020)	Difference	FN/FEI
Rate Schedule 1							
Basic Charge/Day	$ 0.4085	$ 0.3701	$ (0.0384)		$ 0.3701	$ (0.0384)	
Delivery Charge/GJ	$ 4.376	$ 3.712	$ (0.664)		$ 4.097	$ (0.279)	
Annual Usage (GJ)	125	125			125		
Effective Rate/GJ	**$ 5.57**	**$ 4.79**	**$ (0.78)**	(14%)	**$ 5.18**	**$ (0.39)**	(7%)
Rate Schedule 2							
Basic Charge/Day	$ 0.9485	$ 1.2151	$ 0.2666		$ 1.2151	$ 0.2666	
Delivery Charge/GJ	$ 3.384	$ 4.002	$ 0.618		$ 4.435	$ 1.051	
Annual Usage (GJ)	349	349			349		
Effective Rate/GJ	**$ 4.38**	**$ 5.27**	**$ 0.90**	20%	**$ 5.71**	**$ 1.33**	30%
Rate Schedule 3							
Basic Charge/Day	$ 4.7895	$ 3.6845	$ (1.1050)		$ 3.6845	$ (1.1050)	
Delivery Charge/GJ	$ 2.977	$ 3.492	$ 0.515		$ 3.821	$ 0.844	
Annual Usage (GJ)	3,164	3,164			3,164		
Effective Rate/GJ	**$ 3.53**	**$ 3.92**	**$ 0.39**	11%	**$ 4.25**	**$ 0.72**	20%
Rate Schedule 25							
Admin Charge/Mth	$ 39.00	$ 39.00			$ 39.00		
Basic Charge/Mth	$ 469.00	$ 600.00			$ 600.00		
Demand Charge/GJ/Mth	$ 23.358	$ 31.785	8.427		$ 34.449	11.091	
Delivery Charge/GJ	$ 0.836	$ 1.053	0.217		$ 1.141	0.305	
Contract Demand	293	293			293		
Annual Usage (GJ)	41,500	41,500			41,500		
Effective Rate/GJ	**$ 2.96**	**$ 3.93**	**$ 0.97**	33%	**$ 4.24**	**$ 1.28**	43%

1.2 Please discuss, and quantify where possible, at what point there would no longer be a rate impact experienced by FEFN's residential customers from moving to FEI's rates. Please provide all calculations and explain all assumptions.

<u>Response:</u>

FEI cannot predict when in the future there will no longer be a rate impact experienced by FEFN's residential customers from moving to FEI's rates or when FEI would apply for postage stamp rates for FEFN as there are a number of unrelated factors and circumstances, some beyond FEI's control, that could lead to the rate impact being reduced or increased in the near future. For example, the rate impact to FEFN's residential customers due to moving to FEI rates would be reduced if:

- FEFN continues to experience negative growth in residential customers as well as declining natural gas demand in all rate classes as shown in recent years, which would lead to upward pressure in FEFN's delivery rates;
- The FEFN system requires capital investment in the order of $1 to 2 million to address integrity concerns or for other sustainment projects; or
- FEI continues to have modest delivery rate increases to the rest of FEI's service areas in the range of zero to one percent as shown in recent years.

1.3 Please discuss when FEI would likely consider applying to "postage stamp" Fort Nelson rates. As part of this response, please describe the factors and circumstances which would drive such a proposal.

Response:

Please refer to the response to BCUC IR 1.1.2.

B. GAS SALES AND DEMAND AND OTHER REVENUE

2.0 Reference: DEMAND FORECAST

FEI Application for Approval of 2017-2018 Revenue Requirements and Rates for the Fort Nelson Service Area (FEFN 2017-2018 RRA), Exhibit B-3, BCUC Information Request (IR) 3.1.1;

FEI Annual Review for 2019 Delivery Rates, Exhibit B-3, BCUC IR 15.1

FEI demand forecast methodology

In response to the British Columbia Utilities Commission (BCUC) IR 15.1 in the FEI Annual Review for 2019 Delivery Rates, FEI stated the following:

> A full report summarizing FEI's findings of the forecast method comparison completed during the PBR [performance based ratemaking] period, including the pros and cons of each method, a discussion of the pros and cons of using ETS [Exponential Smoothing] for the UPC [use per customer] forecast only and a recommendation regarding which forecasting method to use going forward, will be filed as part of FEI's application for rates for 2020 and future years, to be filed in Q1 2019.

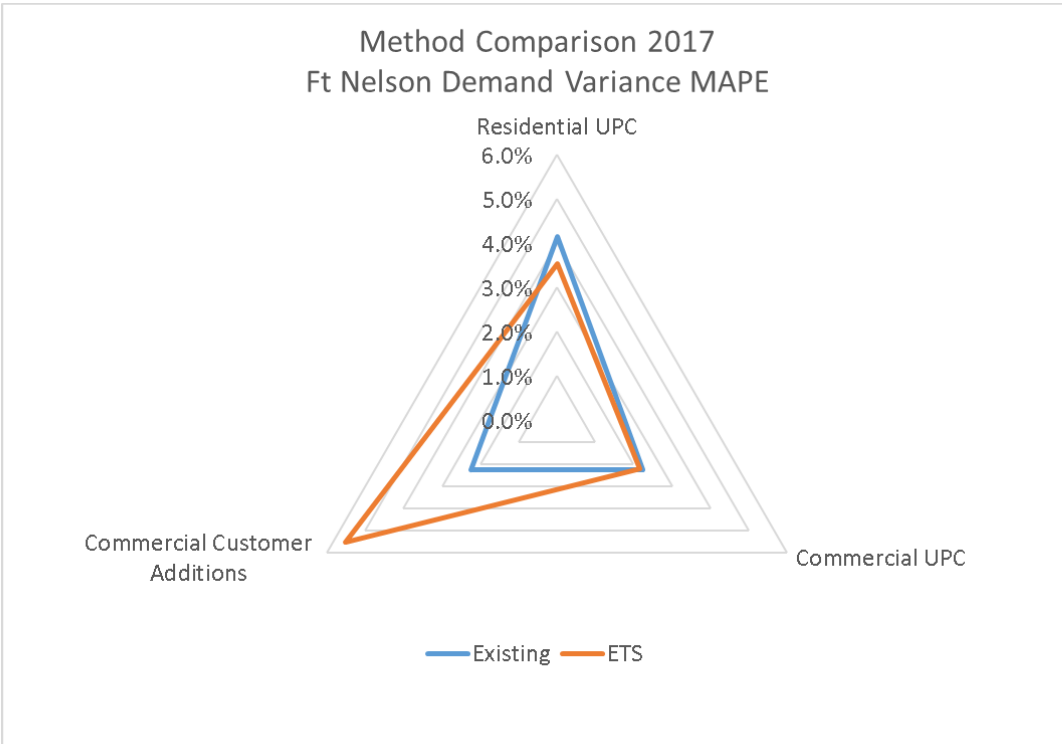
In response to BCUC IR 3.1.1 in the FEFN 2017-2018 RRA, FEI stated the following:

> If the recommendations proposed in the Annual Review of 2017 Rates, which were based on an evaluation of FEI Mainland customers only, are accepted, FEI will begin evaluating the proposed alternate methods for Fort Nelson, Vancouver Island and Whistler customers as well over the remaining term of the existing PBR. If at the end of the PBR period the alternate methods are determined to perform substantially better than the current methods for the majority of service areas, FEI would implement the alternate method for all regions, including Fort Nelson, in future demand forecasts from that point onwards.

2.1 Please confirm, or explain otherwise, that FEI has been evaluating the proposed alternate load forecasting methods for Fort Nelson since the conclusion of the FEI Annual Review for 2017 Delivery Rates proceeding, as described in FEI's response to BCUC IR 3.1.1 in the FEFN 2017-2018 RRA proceeding. Please discuss the results of the evaluation to date.

<u>Response:</u>

Confirmed. FEI has been evaluating the alternative ETS load forecasting method, including for FEFN. The graph below shows the evaluation of the ETS method for 2017 by comparing the variances in both the residential and commercial demand forecasts with 2017 Actual when using the existing method and ETS. The ETS forecasts for 2017 were developed using actual residential and commercial UPCs and commercial customer data from 2004 through 2015. The same data was also used to prepare the demand forecasts using the existing methods.



As shown in the graph above, the ETS method is not producing better results than the existing method in either residential or commercial demand forecasts. For residential demand, which is shown in the top center apex of the graph above, the variance using the residential UPC forecast produced from using the ETS is slightly better than the forecast produced from using the existing method by about 0.6 percent (from approximately 4.1 percent using the existing method vs. approximately 3.5 percent using the ETS method). For commercial UPC, which is shown in the lower right apex of the graph above, the variance is almost identical at approximately 2.2 percent when using the commercial UPC produced by ETS or the existing method. However, the ETS method performed significantly worse than the existing method using commercial customer additions. The ETS achieved a demand variance of 5.5 percent while the existing method achieved a demand variance of 2.2 percent.

2.2 In the event that FEI proposes to change to an alternate forecasting method in the 2020 rates application and is approved to make such a change, how would FEI plan to implement this change in method for Fort Nelson and when would such a change likely take effect? Please discuss.

Response:

A full report summarizing FEI’s comparison of the forecast methods over the PBR period, including a recommendation regarding which forecasting method to use going forward, will be filed in 2019 as part of FEI’s multi-year rate plan application. In that report FEI will include an implementation plan for FEFN in the event that FEI proposes to change to the ETS method.

3.0 Reference: GAS SALES AND DEMAND, AND OTHER REVENUE

Exhibit B-1, Section 4.5, pp. 27-30, Figures 4-4 to 4-6

Use per customer

Figures 4-4 to 4-6 on pages 28 to 30 of the Application provide annual Use per Customer (UPC) rates for each of Rate Schedules 1 through 3.

On page 27 of the Application, FEI states that "[t]he Rate Schedule 1 UPC is forecast to continue to decline through the Test Period…."

On page 28 of the Application, FEI states that "the UPC of Rate Schedule 2…has been declining steadily since 2015…. The recently approved rate design for FEFN will result in 16 customers being moved out of Rate Schedule 2 and into Rate Schedule 3."

3.1 In FEI's view, what are the primary reasons for the continuing decline in the UPC for Rate Schedule 1 and Rate Schedule 2 customers? Please discuss.

Response:

This response also addresses BCUC IR 1.3.1.1.

FEI cannot definitively explain any change in UPC in a given year as it is a result of many factors that may be both compounding and offsetting. For example, use rates for residential Rate Schedule 1 customers may go down due to increased appliance efficiency and/or improvements in building envelopes, but this may be offset by an increase in the number of appliances used in a home, a change in how appliances are used and/or the number of people in a home.

The commercial customers (Rate Schedules 2 and 3) operate in 68 different industry sectors. These industry sectors and the customers within them each have heterogeneous requirements because they are all affected differently by many different factors and energy uses. In addition, one-time or infrequent events (e.g. recessions) also impact customers and sectors in different ways.

FEI expects that its load will continue to be influenced by many factors that may have affected load variances in the past, including customer behavior, economic activity, DSM, government policies (such as environmental policy), new technology, housing formations, etc.

3.1.1 Does FEI anticipate the decline in UPC for Rate Schedules 1 and 2 to continue beyond the Test Period? Please explain why or why not.

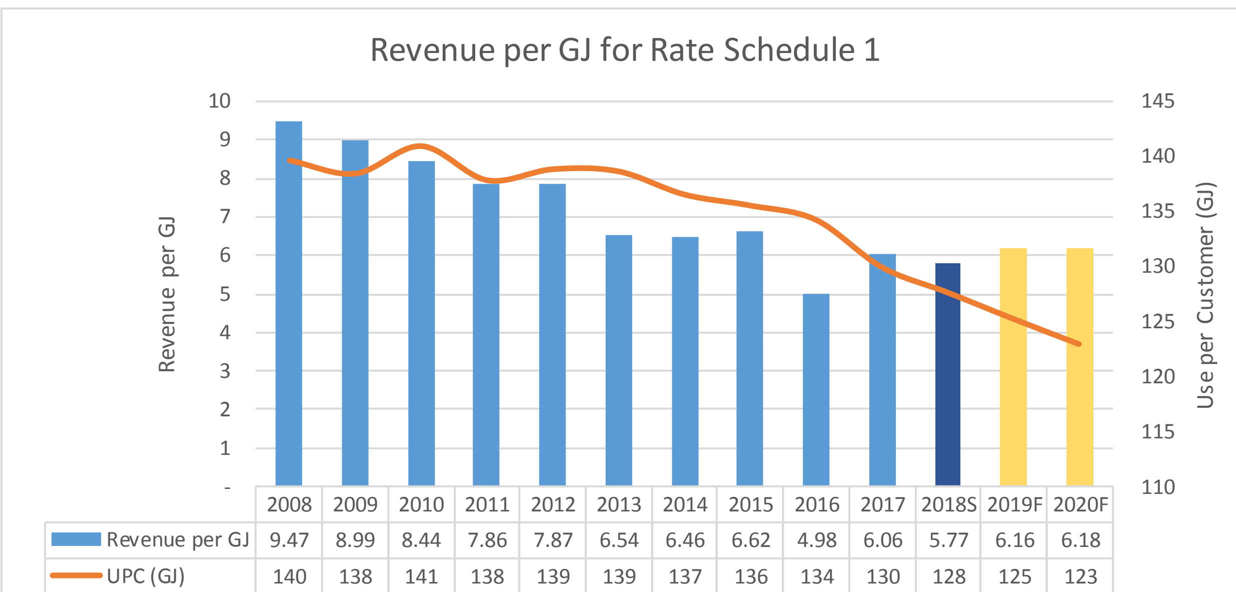
Response:

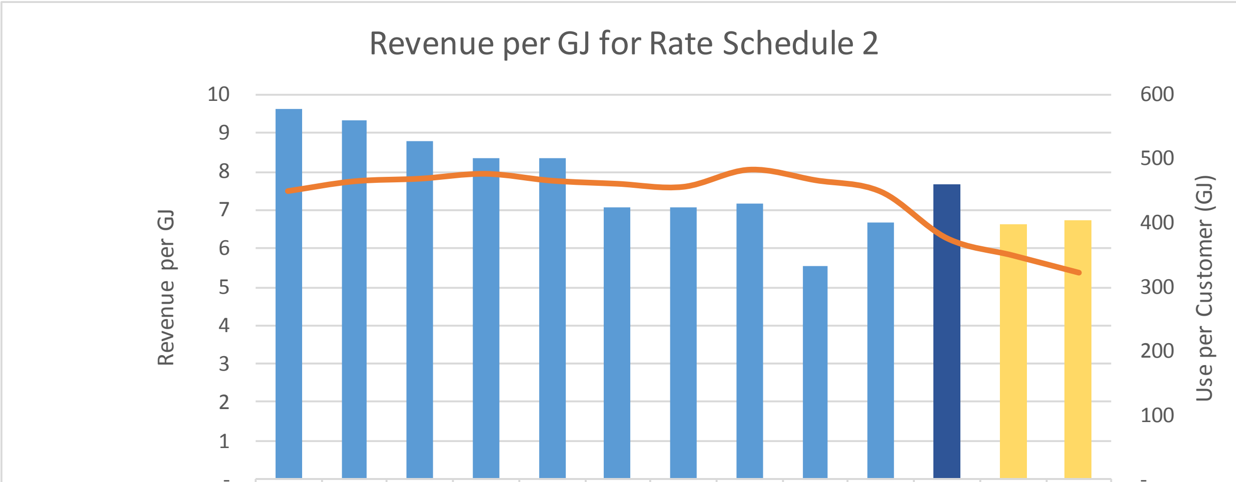
Please refer to the response to BCUC IR 1.3.1.

3.2 Please provide a graph that shows the revenue per gigajoule (GJ) from actual 2008 to 2017, projected 2018 and forecast 2019 and 2020 for each of Rate Schedules 1 through 3.

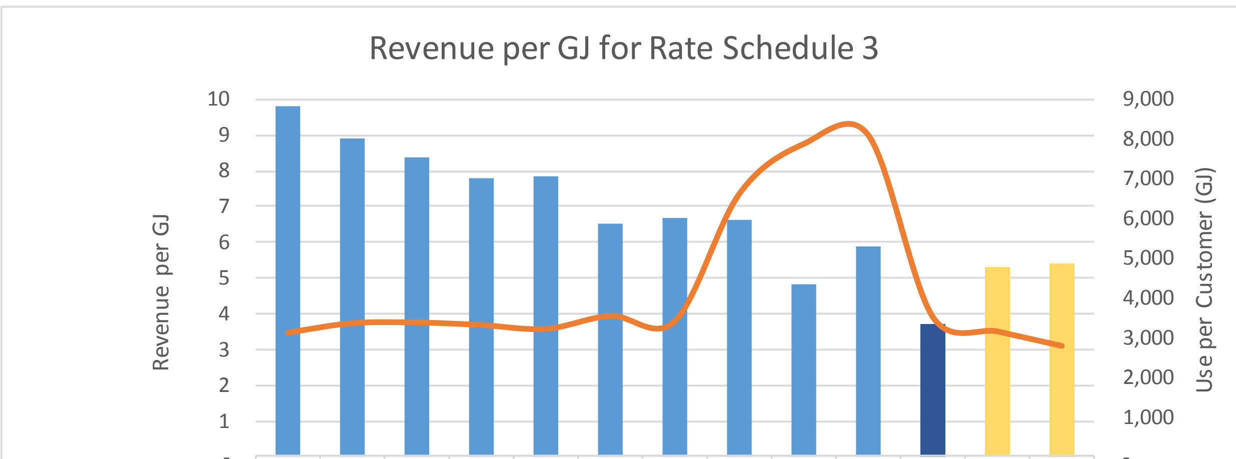
Response:

Please see the graphs below for revenues per gigajoule (GJ) based on normalized volumes, shown as bars, as well as the Use per Customer (GJ), shown as an orange line. These graphs are for Rate Schedules 1, 2 (formerly Rate 2.1), and 3 (formerly Rate 2.2) and show actuals from 2008 to 2017, projected 2018 and forecast 2019 and 2020 amounts.





	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018S	2019F	2020F
Revenue per GJ	9.63	9.31	8.80	8.33	8.34	7.06	7.06	7.17	5.56	6.69	7.64	6.63	6.75
UPC (GJ)	449	464	468	476	465	460	456	482	466	448	376	349	323



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 S	2019 F	2020 F
Revenue per GJ	9.81	8.93	8.39	7.80	7.83	6.50	6.68	6.62	4.80	5.88	3.70	5.33	5.42
UPC (GJ)	3,137	3,371	3,388	3,326	3,228	3,555	3,425	6,616	7,869	8,086	3,526	3,164	2,802

FEI notes that for Rate Schedule 3, the increase in UPC starting in 2015 was due to connecting a single large development project that year. The decrease in UPC starting in 2018 for Rate Schedule 3, and also to a lesser extent for Rate Schedule 2, was due to the change in separation point, from 6,000 GJ per year to 2,000 GJ per year, between Rate Schedules 2 and 3 as a result of the RDA Decision.

3.3 In FEI's view, is there a correlation between rate increases and the energy demand for each rate class? Please discuss.

Response:

In economics, the price elasticity of demand is used to analyse the relationship between rate changes and demand (when nothing but the price changes). In general, third party price elasticity studies indicate that natural gas consumers, particularly residential customers, have low price elasticity of demand, meaning that the demand for natural gas does not significantly change with the changes in price level.

FEI also conducted a simple correlation analysis between rates (i.e., revenue per GJ) and energy demand (UPC) using the data provided in FEI's response to BCUC IR 1.3.2. The correlation coefficients of each rate class shown in the table below indicate there is very low correlation between the rates and energy demand, especially for the two commercial rate classes. This supports FEI's view that factors other than rates, such as those noted in FEI's response to BCUC IR 1.3.1, have a more significant impact on customers' demand than rates.

	Correlation Coefficient (R)
Residential Rate Schedule 1	0.66
Commercial Rate Schedule 2	0.30
Commercial Rate Schedule 3	(0.34)

4.0 Reference: GAS SALES AND DEMAND, AND OTHER REVENUE

Exhibit B-1, Appendix A-2, Section 2, pp. 1-2, Tables A2-1 and A2-2

Historic and Forecast Customer Counts, Customer Additions, Use per Customer and Energy

On pages 1-2 in Appendix A2 of the Application, FEI provides Tables A2-1 and A2-2:

Table A2-1: FEFN Historic Customer Counts, Customer Additions, Use per Customer and Energy

FORT NELSON	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Customers										
Rate Schedule 1	1,925	1,925	1,937	1,955	1,947	1,959	1,962	1,963	1,945	1,927
Rate Schedule 2.1	414	412	421	447	443	446	446	474	478	476
Rate Schedule 2.2	28	28	28	31	31	31	31	7	7	6
Rate Schedule 25	2	2	2	2	2	2	2	2	2	1
Total Customers	**2,369**	**2,367**	**2,388**	**2,435**	**2,423**	**2,438**	**2,441**	**2,446**	**2,432**	**2,410**
Customer Additions										
Rate Schedule 1	(3)	-	12	18	8	12	3	1	(18)	(18)
Rate Schedule 2.1	6	(2)	9	26	4	3	-	28	4	(2)
Rate Schedule 2.2	(2)	-	-	3	-	-	-	(24)	-	(1)
Rate Schedule 25	-	-	-	-	-	-	-	-	(1)	-
Total Customer Additions	**1**	**(2)**	**21**	**47**	**12**	**15**	**3**	**5**	**(15)**	**(21)**
Energy (TJs)										
Rate Schedule 1	268	266	271	268	269	270	268	265	262	251
Rate Schedule 2.1	185	191	194	206	205	204	204	223	222	214
Rate Schedule 2.2	88	94	95	97	100	110	106	65	55	48
Rate Schedule 25	210	69	55	51	56	61	68	50	41	42
Total Energy (TJs)	**751**	**621**	**615**	**622**	**630**	**645**	**645**	**603**	**580**	**556**
Use Rate (GJ)										
Rate Schedule 1	139.6	138.4	140.9	137.8	138.8	138.6	136.5	135.5	134.2	129.9
Rate Schedule 2.1	448.9	464.0	468.1	475.6	465.0	460.2	455.5	482.0	465.8	447.8
Rate Schedule 2.2	3,137	3,371	3,388	3,326	3,228	3,555	3,425	6,616	7,869	8,086

Table A2-2: FEFN Forecast Customer Counts, Customer Additions, Use per Customer and Energy

FORT NELSON	2014	2015	2016	2017	2018S	2019F	2020F
Customers							
Rate Schedule 1	1,962	1,963	1,945	1,927	1,909	1,941	1,918
Rate Schedule 2*	444	447	452	453	456	465	468
Rate Schedule 3*	20	20	20	20	20	19	19
Rate Schedule 25	2	2	2	1	1	1	1
Total Customers					**2,386**	**2,426**	**2,406**
Customer Additions							
Rate Schedule 1	-	1	(18)	(18)	(18)	32	(23)
*Rate Schedule 2**		3	5	1	3	9	3
*Rate Schedule 3**		-	-	-	-	(1)	-
Rate Schedule 25							
Total Customer Additions					**(15)**	**40**	**(20)**
Energy (TJs)							
Rate Schedule 1	268	265	262	251	245	244	237
*Rate Schedule 2**	210	195	186	182	171	160	150
*Rate Schedule 3**	91	88	82	77	71	61	53
Rate Schedule 25	68	50	41	42	42	42	42
Total Energy (TJs)					**527**	**507**	**482**
Use Rate (GJ)							
Rate Schedule 1	136.5	135.5	134.2	129.9	127.6	125.2	122.9
*Rate Schedule 2**	473.8	437.2	412.0	402.4	375.9	349.3	322.7
*Rate Schedule 3**	4,556	4,408	4,109	3,861	3,526	3,164	2,802

4.1 Please explain why the "Total Customers" and "Total Energy (TJs)" for 2014 to 2017 in Table A2-1 do not equal the "Total Customers" and "Total Energy (TJs)" in Table A2-2.

Response:

Table A2-1 reflects FEI's official customer count and consumption information for FEFN. While the Rate Schedule 1 and Rate Schedule 25 data in Table A2-1 matches Table A2-2, the 2014 to 2017 data for the commercial rate schedules in Table A2-2 differs because it was developed for the purpose of mapping FEFN commercial customers to the new Rate Schedules 2 and 3. As such, commercial customers that were no longer customers **at the end of 2017** were excluded from Table A2-2 because they were not mapped.

FEI mapped customers to Rate Schedule 2 and 3 by calculating the four-year average consumption for each premise of a commercial customer at the end of 2017. Based on that average, FEI assigned each customer to either Rate Schedule 2 (if the consumption was less than 2,000 GJ) or Rate Schedule 3 (if the consumption was greater than 2,000 GJ). This was a one-time exercise for the purpose of implementing the Rate Design Decision.

The 2014 to 2017 data in Table A2-2 for the commercial rate schedules reflects 2014 to 2017 consumption data only for customers that were in a commercial rate schedule at the end of

2017. FEI used this data to forecast the average consumption for Rate Schedules 2 and 3 for 2018 to 2020.

The difference between Tables A2-1 and A2-2 can be explained by the following hypothetical example using two premises, with the consumption and customer count data as shown below:

Premise	Rate	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1234	2.1	100	100	100	100	100	100	100	100	100	100	100	100	1,200
5678	2.1	100	100	100	100	100								500

	A2-1	A2-2
Customers	2	1
Demand	1,700	1,200

Assume there were two commercial premises in Rate Schedule 2.1 as shown in the table. Premise #1234 remained a customer for the year, while premise #5678 ceased operation in June.

For the purposes of Table A2-1, FEI reports the annual totals as shown in the second table, with two customers and the aggregate demand of 1,700 which sums the values from the data provided. However, and only for the purpose of producing the comparative values for the forecast of Rate Schedules 2 and 3 as shown in Table A2-2, FEI only included customers that were in a commercial rate schedule **at the end of 2017**. In the case of the example above, only premise #1234 was in operation at the end of 2017 and therefore it was included in the analysis, while Premise #5678 would have been excluded from the analysis since it is no longer a commercial customer at the end of 2017. Table A2-2 as shown in the second table above only includes the one customer in operation at the end of 2017, and the consumption for that one customer.

C. OPERATING AND MAINTENANCE EXPENSES

5.0 Reference: DIRECT O&M EXPENSES

Exhibit B-1, Section 6.3, pp. 41-42, Table 6-1; FEFN 2017-2018 RRA proceeding, Exhibit B-1, Table 5-1; Exhibit B-3, BCUC IR 6.3

Labour costs

The following extract of Table 6-1 on page 41 of the Application shows the following M&E and IBEW costs:

Table 6-1: O&M Resources Required for FEFN ($ thousands)

Particulars	2017 Approved	2017 Actual	2018 Approved	2018 Projected	2019 Forecast	2020 Forecast
M&E Costs	$ 19	$ 25	$ 19	$ 18	$ 19	$ 19
IBEW Costs	330	132	338	364	327	331
Labour Costs	**349**	**157**	**357**	**382**	**346**	**350**

5.1 Please explain the $6,000 variance between the 2017 Approved and 2017 Actual M&E costs.

Response:

The variance between the 2017 Approved and 2017 Actual M&E costs is due to the 2017 Actual M&E costs including a $6 thousand allocation of time for a member of the Prince George Operations management team to provide project management oversight support to FEFN for the Downtown mains capital upgrade.

The following is an extract from Table 5-1 provided in the FEFN 2017-2018 RRA:

Table 5-1: O&M Resources Required for FEFN ($ thousands)

Particulars	2015 Approved	2015 Actual	2016 Approved	2016 Projected	2017 Forecast	2018 Forecast
M&E Costs	$ 15	$ 18	$ 15	$ 18	$ 19	$ 19
IBEW Costs	334	320	345	326	330	339
Labour Costs	**349**	**338**	**360**	**344**	**349**	**358**

In response to BCUC IR 6.3 in the FEFN 2017-2018 RRA proceeding, FEI stated the following regarding the 2015 variance between Approved and Actual M&E costs:

> The variance of $3 thousand between the Approved and Actual M&E costs is due to an increased level of support for O&M activities that was required during 2015 which resulted in an increase in the percentage of the Prince George Operations team salaries allocated to O&M (more O&M activities were required and less capital activities were required). Further, FEI projects the same level of support that was required in 2015 for O&M activities will also be required in 2016 through 2018.

5.2 Please explain whether the "same level of support", as described in response to BCUC IR 6.3 in the above preamble, is expected to be required for the 2019 and 2020 test years.

<u>Response:</u>

Yes, FEI expects the same level of support will be required for the 2019 and 2020 test years. While there may be a variation in the O&M activities from year to year as was the case for 2017 Actual and 2018 Projected, the level of support would remain the same based on the nature of work being performed by the managers supporting FEFN. The management work includes providing management oversight and support, setting performance objectives and expectations, assessments of work quality, coaching, training, work planning, prioritization and execution.

5.2.1 If not, please discuss whether it would be appropriate to reduce the forecast 2019 and 2020 M&E costs to be consistent with the approved 2015 and 2017 amounts of $15,000.

<u>Response:</u>

FEI interprets the question as whether it would be appropriate to reduce the forecast 2019 and 2020 M&E costs to be consistent with the approved 2015 and ***2016*** amounts of $15,000. No, as discussed in response to BCUC IR 1.5.2, FEI believes the actual level of activities and costs experienced for M&E in recent years (i.e., 2017 Actual and 2018 Projected) provides a more reasonable basis to the forecast costs in 2019 and 2020.

Table 6-1 on page 41 of the Application shows a variance between the 2017 Approved and 2017 Actual IBEW Costs of $198,000.

On pages 41-42 of the Application, FEI states:

> The 2017 Actual is lower compared to 2017 Approved, primarily due to an IBEW employee being on medical leave worth approximately $40 thousand, an amount of approximately $70 thousand for standby labour that was inadvertently excluded from the 2017 O&M, and lower than anticipated maintenance activities undertaken.

5.3 Please confirm, or explain otherwise, that the remaining variance of approximately $88,000 is due to "lower than anticipated maintenance activities undertaken."

Response:

The response to this IR addresses BCUC IRs 1.5.3.1, 1.5.3.2 and CEC IRs 1.8.2, 1.8.3 and 1.8.4.

FEI confirms that the remaining variance of approximately $88,000 is attributed primarily to "lower than anticipated maintenance activities".

There are many factors that can affect O&M costs, such as (i) corrective maintenance work, which is typically unplanned (e.g. for leaks), (ii) maintenance work that is scheduled on a cyclical basis, (iii) unplanned maintenance work, and (iv) mains maintenance work that is reviewed and may be deferred (or brought forward) from one year to the next.

The 2017 Approved amount, when originally forecast, was based primarily on the 2015 Actual and 2016 Projected amounts available at the time of filing the FEFN 2017-2018 RRA. The 2015 Actual and 2016 Projected were similar, and FEI did not anticipate any future changes to the type of work that could be undertaken in 2017. FEI therefore developed the 2017 Forecast based on the 2016 Projected results with inflation.

Given the many factors that affect O&M costs and the basis for the 2017 Forecast, the cost breakdown and description of the 2017 planned maintenance activities is not available. FEI is only able to state at a high level that the remaining variance of $88,000 between 2017 Approved and 2017 Actual is due primarily to lower than anticipated maintenance activities.

5.3.1 If confirmed, please explain in detail why there was less anticipated maintenance activities undertaken in 2017 and if any maintenance activities were deferred to future years. Please also provide a cost breakdown and description of the planned versus actual maintenance activities undertaken in 2017.

Response:

Please refer to the response to BCUC IR 1.5.3.

5.3.2 If not confirmed, please elaborate on the reason for the remaining variance.

Response:

Please refer to the response to BCUC IR 1.5.3.

5.4 Please explain where the approximately $70,000 for standby labour that was inadvertently excluded from the 2017 Actual O&M was recorded to in 2017.

Response:

The $70 thousand standby labour that was inadvertently excluded from FEFN's 2017 Actual O&M was recorded in FEI's Actual O&M in 2017. As discussed in Section 6.3.1.1 of the Application, the 2018 Actual O&M will include a true-up of this $70 thousand standby labour in both FEI and FEFN; i.e., an additional $70 thousand of standby labour will be allocated from FEI to FEFN in 2018, such that the variance in Actual O&M will net to zero over the two years. The reduction in FEI O&M in 2018 will be captured in the earnings sharing mechanism calculation when setting FEI's 2020 rates and half of the $70,000 credit will be returned to FEI non-bypass customers through 2020 rates.

5.5 Please provide a detailed breakdown and description of the forecast IBEW costs for 2019 and 2020.

Response:

The IBEW labour costs include the time of the two full-time FEFN employees and the specialized pressure control technicians from Prince George who provide support to FEFN from time to time. The IBEW labour costs reflect the fully loaded labour costs (salary wages, pension and benefit overhead loadings), salary premiums and overtime.

The 2019 Forecast was based on the adjusted 2018 Projected IBEW labour costs (excluding the 2017 standby labour costs) of $294 thousand plus the 2018 estimated labour of $25 thousand for the IBEW employee assigned to cross train in other areas during 2018, $2 thousand labour related to the meter installation for the purchase of the Prophet River Extension and $6 thousand inflation.

Below is a breakdown of the forecast IBEW costs for 2019 and 2020. The increase in the 2020 Forecast is due to inflation.

In 000's	2019 Forecast	2020 Forecast
Full-time IBEW employees	280	286
Specialized pressure technicians	45	45
Labour related to meter installation for the purchase of the Prophet River Extension	2	
Total IBEW Labour Costs	**327**	**331**

6.0 Reference: DIRECT O&M EXPENSES

FEFN 2017-2018 RRA proceeding, Exhibit B-3, BCUC IR 9.1

Facilities

In response to BCUC IR 9.1 in the FEFN 2017-2018 RRA proceeding, FEI provided the following tabular breakdown of Facilities costs:

In $000s	2013 Approved	2013 Actual	2014 Forecast [1]	2014 Actual [2]	2015 Approved	2015 Actual	2016 Approved	2016 Projection [3]	2017 Forecast	2018 Forecast
Heat, Light, Gas and Water	7	13	7	8	7	8	7	8	8	8
Janitorial Services	1	1	1	1	1	1	1	1	1	1
Other Facilities Costs	3	4	3	7	3	7	3	18	7	8
Communication Costs	0	0	0	12					12	12
Line Heater Fuel	0	0	0	12					13	14
Total Facilities Costs	**11**	**18**	**11**	**39**	**12**	**16**	**12**	**27**	**41**	**42**

6.1 Please update the above table with the 2016 Actual, the 2017 Actual, the 2018 Projected and the 2019 and 2020 Forecasts.

Response:

Below is an updated tabular breakdown of Facilities costs. The communications and line heater fuel costs were only included in FEFN O&M beginning 2017. As discussed in Section 5.3 of the 2017-2018 RRA, these costs were previously centralized in FEI and not allocated to FEFN. FEI has removed the FEFN communication and line heater costs from its base O&M and included these costs in the FEFN O&M beginning 2017.

In $000s	2013 Approved	2013 Actual	2014 Forecast [1]	2014 Actual [2]	2015 Approved	2015 Actual	2016 Approved	2016 Projection	2016 Actual	2017 Approved	2017 Actual	2018 Approved	2018 Projected	2019 Forecast	2020 Forecast
Heat, Light, Gas and Water	7	13	7	8	7	8	7	8	6	8	9	8	8	8	8
Janitorial Services	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Other Facilities Costs [3]	3	4	3	7	3	7	3	18	16	7	7	8	10	10	10
Communication Costs	0	0	0	12						12	10	12	10	11	11
Line Heater Fuel	0	0	0	12						13	6	14	5	7	7
Total Facilities Costs	**11**	**18**	**11**	**39**	**12**	**16**	**12**	**27**	**24**	**41**	**32**	**42**	**34**	**36**	**37**

[1] Used the 2014 Forecast O&M as filed in the FEI Ft. Nelson 2014 Deferral Acount Treatment Application as FEFN did not have an approved number for 2014. Note that there was no breakdown of the Total Gross O&M included in the Application.

[2] 2014 Actual as per the Annual Report. Adjustment to commucations/line heater is embedded in the revenue surplus/deficit account.

[3] Other facilities costs include services such as garbage, security, yard maintenance, snow removal, electric maintenance and other facilities maintenance costs.

7.0 Reference: DIRECT O&M EXPENSES

Exhibit B-1, Sections 6.3 and 8.2, pp. 41 and 48, Table 6-1; FEFN 2017-2018 RRA proceeding, Exhibit B-1, p. 28; Exhibit B-3, BCUC IR 8.5

Contractor Costs

In Table 6-1 on page 41 of the Application, FEI provides the 2017 Approved and Actual, 2018 Approved and Projected, and 2019 and 2020 Forecast contractor costs.

On page 28 of the FEFN 2017-2018 RRA, FEI stated that the contractor costs were "incurred mostly for corrective maintenance work. In 2014 and 2015, actual costs were higher than approved mainly due to leak repairs, excavation, paving and flagging costs required to fix the below ground leaks detected on the gas main. The contractor costs are forecast to increase beginning in 2016 onwards based on past history as one or two leaks may have a major impact on the costs."

In response to BCUC IR 8.5 in the FEFN 2017-2018 RRA proceeding, FEI stated:

> FEI anticipates that leaks in 2017 and 2018 would likely occur on the distribution plant. As discussed in the response to BCUC IR 1.8.1, a review of recent history indicates leaks have been occurring on the distribution plant. As FEI does not have information available that suggests this trend is going to change, recent history serves as the basis for FEI's forecast of future leaks.

On page 48 of the Application, FEI discusses the "proactive replacement of steel distribution mains and services to address those that are prone to leaks."

7.1 Please discuss if FEI's proactive replacement of steel distribution mains and services is expected to have a positive impact on the 2019 and 2020 forecast contractor costs. Why or why not?

Response:

FEI expects that proactively replacing steel distribution mains and services known to have fittings and construction methods that are prone to leaks will lead to positive impacts on contractor costs over time, but FEI is not able to determine if any positive impact will be realized in 2019 and 2020. This is because FEI only has two years of the ten-year program complete, and more years of experience will be required before a trend in decreasing leaks and corresponding decreasing contractor costs can be forecast.

7.1.1 If yes, please quantify the positive impact and explain why the 2019 and 2020 forecast contractor costs is relatively similar to the 2017 and 2018 approved amounts.

Response:

Please refer to the response to BCUC IR 1.7.1.

7.2 Please compare the type of work forecast to be performed by contractors in 2017 and 2018 to the type of work actually performed by contractors in 2017 and 2018, and explain the cause(s) of any changes in anticipated work.

Response:

The work forecast to be performed by contractors in 2017 and 2018 was primarily for anticipated repairs to leaks on the Distribution plant system. The work actually performed by contractors in 2017 and 2018 included leak repair activities on distribution plant, leak surveying activities, and also snow removal. The use of contractors for these activities is consistent with previous years.

7.3 Please explain if any leaks occurred in 2017 and 2018, including the type of leaks (i.e. transmission plant, distribution plant, etc.) and provide the cost to repair the leak(s).

Response:

In 2017 and up to the end of Q3 2018 FEFN experienced a total of 7 below-ground leaks on distribution plant. All 7 occurred on distribution services. Five of these leaks occurred in 2017, three of which contractors performed repairs on. The total cost to repair the leaks was $9,100, of which $3,200 was Contractor costs. The other two leaks occurred in 2018 (prior to the end of September 2018), with contractors performing repairs on one of them. The total cost to repair the leaks was $5,300, of which $2,800 was Contractor costs.

D. TAXES

8.0 Reference: PROPERTY TAX

Exhibit B-1, Section 7.1, p. 44

Property tax variances

On page 44 of the Application, FEI states: "Any variances from the forecast of property taxes included in rates will be recorded in the Property Tax deferral account and returned to or collected from customers in the following year." [emphasis added]

8.1 Please confirm, or explain otherwise, that the above statement is in error and that the property tax variances recorded in the Property Tax deferral account are amortized over three years, not one year.

Response:

FEI confirms that the above statement was in error and that the property tax variances recorded in the Property Tax deferral account are amortized over three years in accordance with BCUC Order G-44-12.

E. RATE BASE AND CAPITAL ADDITIONS

9.0 Reference: GROSS PLANT ADDITIONS

Exhibit B-1, Section 8.2, p. 47, Table 8-2

Intangible plant

On page 47 FEI provides the following table:

Table 8-2: Summary of Gross Plant Additions ($000s)[22]

	Approved 2017	Actual 2017	Approved 2018	Projected 2018	Forecast 2019	Forecast 2020
Intangibles	46	74	46	46	28	28
Transmission	75	54	15	15	5	5
Distribution	307	302	388	399	575	463
General	50	50	50	50	41	41
Total	478	480	499	510	649	537

9.1 Please explain why the actual intangible additions in 2017 were $28,000 or 61 percent greater than the approved amount.

Response:

In 2017, Normalized Sales Volume was used to allocate Intangible software actual additions to FEFN, while customer count was used to allocate the forecasted amount. The allocation using Normalized Sales Volume resulted in a larger allocation of actuals to FEFN in 2017 than if customer count would have been used. Additionally, total actual capital additions for Computer Software in FEI were higher compared to the forecasted amounts. FEI will include a correction in an evidentiary update by adjusting FEFN opening plant downward by $23 thousand to correct for the proper allocation method, i.e. using customer count.

In the 2019/2020 FEFN RRA the forecasted amounts for Intangible software has been allocated based on customer count and going forward, actual capital additions will also be allocated using customer count.

10.0 Reference: GROSS PLANT ADDITIONS

Exhibit B-1, Section 8.2, Table 8-3, pp. 47-48; FEFN 2017-2018 RRA proceeding, Exhibit B-3, BCUC IRs 13.4, 13.5 and 13.7

Distribution plant

On page 48 of the Application, FEI provides the following table:

Table 8-3: Summary of Capital Additions for Distribution Assets ($000s)

	Forecast 2019	Forecast 2020
Growth related Distribution Capital	23	28
Muskwa Gate Station Telemetry	163	-
Recreation Centre District Station Valve Replacement	-	74
Replacement of Steel Distribution Mains and Services	243	319
PRFN Project	104	-
Misc Sustainment Capital	42	42
Total	575	463

In response to BCUC IR 13.5 in the FEFN 2017-2018 RRA proceeding, FEI provided the following table with respect to a Class 5 cost estimate for the replacement of steel distribution mains and services:

($ 000)	2017		2018	
Planning Mains – Labour	20		30	
Materials Mains	2	Approx. 460 metres	3	Approx. 725 metres
Installation Mains – Labour	105		166	
Materials Services	2	Approx. 20 services	4	Approx. 30 services
Installation Services – Labour	46		72	
Total	175		275	

In response to BCUC IR 13.4 in the FEFN 2017-2018 RRA proceeding regarding the replacement of steel distribution mains and services, FEI stated:

> FEI intends to replace specific sections of main, based on age, known fittings prone to leakage and probability of unusual or unknown construction methods, to reduce the risk to the public. The steel pipe previously used for the mains and services would be replaced with polyethylene pipe, reducing corrosion concerns, and during the replacements, FEI would gain a better understanding of how the original system was constructed in the 1950s in order to assist with decision-making in the future.

In response to BCUC IR 13.7 in the FEFN 2017-2018 RRA proceeding, FEI stated:

> With regard to the replacement of steel distribution mains and services, FEI's Leak Management activity within its Integrity Management Program has the objective to reduce the probability of significant consequences should a failure or damage incident occur…FEI intends to select specific mains for replacement that will achieve these objective, that is, to reduce the probability of a leak in locations that would result in a significant hazard to the public.

10.1 Please discuss how recent projects to replace steel distribution mains and services have improved FEI's understanding of the causes of the leaks and how this knowledge has aided FEI in planning future replacement projects.

<u>Response:</u>

Recent projects to replace steel distribution mains and services have confirmed FEI's previous understanding of the causes of the leaks on the FEFN distribution system.

Generally, past leaks were a result of corrosion of the steel mains and services due to insufficient levels of cathodic protection at specific locations. This may be due to pipe coating that is in poor condition or adverse soil conditions. As well, the extensive use of non-welded mechanical couplings to join sections of main together or to attach services to mains are sources of leaks, often due to the ground freeze-thaw cycle. FEI's recent experience has shown that more of these fittings may have been used than is indicated in the available documentation.

Removing portions of the distribution system suspected of having these conditions reduces the likelihood of a leak and the need for emergency response, possibly in poor weather conditions. FEI is focusing its efforts on locations of perceived higher risk to public safety.

10.2 Please update the table provided in response to BCUC IR 13.5 in the FEFN 2017-2018 RRA proceeding with respect to the replacement of steel distribution mains and services with the 2017 and 2018 actuals and the 2019 and 2020 forecasts.

<u>Response:</u>

An updated table with respect to the replacement of steel distribution mains and services during 2017 and 2018 is as follows.

($000)	2017 (Actual)		2018 (Projected)	
Planning - Labour	14.6		24.3	
Materials Mains	8.9	1050m	14.4	1600m
Installation Mains – Labour & Expenses	136.7		194.6	
Materials - Services	0.7	7 services	3.9	18 services
Installation Services – Labour & Expenses	6.9		31.7	
TOTAL	**167.8**		**268.9**	

The forecast for the replacement of steel distribution mains and services during 2019 and 2020 is as follows.

($000)	2019 (Forecast)		2020 (Forecast)	
Planning - Labour	20		25	
Materials Mains	15	Approx. 1450m	20	Approx. 1900m
Installation Mains – Labour & Expenses	185		235	
Materials - Services	3	Approx. 15 services	4	Approx. 25 services
Installation Services – Labour & Expenses	20		35	
TOTAL	**243**		**319**	

10.3 Please explain the time frame over which FEI anticipates undertaking the proactive replacement of steel distribution mains and services. As part of this response, please explain if the level of expenditures experienced in 2017 and 2018 and forecast to be experienced in 2019 and 2020 are anticipated to continue into the future.

Response:

FEI estimates that at the current expenditure levels and main replacement rate, a further eight years, including 2019 and 2020, should be sufficient to complete the proactive replacement of mains that contain the conditions that are of concern. In FEFN, an average expenditure of approximately $280 thousand per year, based on the forecast for 2019 and 2020, is a reasonable amount of work to plan and execute successfully.

10.4 Please discuss if there has been a change in scope of the replacement of steel distribution mains and services since the FEFN 2017-2018 RRA proceeding. If yes, please describe the change and the resulting implications.

Response:

No, there has been no change of scope. The focus continues to be on replacement of specific sections of main based on age, known fittings prone to leakage and probability of unusual or unknown construction methods, to reduce the likelihood of a leak, need for emergency response and risk to the public.

10.5 Please provide a breakdown and description of the costs forecast for the Muskwa Gate Station Telemetry project and the Recreation Centre District Station Valve Replacement project.

Response:

Class 5 cost estimates for the Muskwa Gate Station Telemetry project and the Recreation Centre District Station Valve Replacement project are as follows.

Muskwa Gate Station Telemetry

The forecast for this project is $183 thousand, which will be incurred in 2018 and 2019. The project includes the installation of a telemetry building and equipment and an upgrade to the line heater controls.

Muskwa Gate Station Telemetry	2018 ($000)	2019 ($000)	
Project management	4	5	Labour and expenses
Engineering design	16	6	Labour and expenses
Installation		77	Labour and expenses
Materials - telemetry		55	
Materials – line heater controls		20	
Total	**20**	**163**	

Recreation Centre District Station Valve

The forecast for this project is $288 thousand, the majority of which will be incurred outside of the 2019-2020 period. Additional scope has been identified by FEI requiring the replacement of an additional five valves and adding a station bypass. Additionally, the City of Fort Nelson has requested that FEI relocate the station. This will likely result in a complete replacement of the station with installation at a different location. The full scope and timing of the project will be clarified during 2020 or before.

Recreation Centre District Station Valve	2020 ($000)	2021 ($000)	2022 ($000)	
Project management		10	3	Labour and expenses
Engineering design	20	5	5	Labour and expenses
Materials	50	170		Procurement
Total	**74**	**185**	**8**	

10.6 Please describe and provide a breakdown of the "Misc Sustainment Capital" forecast for 2019 and 2020.

Response:

The Misc. Sustainment Capital forecasted for 2019 and 2020 includes the following:

($000)	2019	2020
Unidentified mains and service alterations directed by others (non-receivable)	26	26
Unidentified mains and service alterations requested by others (receivable)	6	6
Unidentified service line hazards mitigation	5	5
Unidentified cathodic protection installations	5	5
Total	**42**	**42**

11.0 Reference: GROSS PLANT ADDITIONS

Exhibit B-1, Section 8.2, Table 8-3, p. 48, Appendix A2, Table A2-2, p. 2, Appendix A3, Table A3-5, p. 6; FEFN 2017-2018 RRA proceeding, Exhibit B-3, BCUC IR 14.2

Growth related distribution capital

Table 8-3 on page 48 of the Application shows forecasts of $23,000 for 2019 and $28,000 for 2020 of capital additions for growth related distribution capital.

Table A2-2 on page 2 of Appendix A2 of the Application shows the following forecast customer additions:

- RS 1: 32 for 2019 and (23) for 2020
- RS 2: 9 for 2019 and 3 for 2020
- RS 3: (1) for 2019 and none for 2020
- RS 25: none for 2019 and 2020

Table A3-5 on page 6 of Appendix A3 shows the total forecast residential additions (RS 1) without the Prophet River First Nation (PRFN) acquisition as (21.5) for 2019 and (22.7) for 2020.

In response to BCUC IR 14.2 in the FEFN 2017-2018 RRA proceeding, FEI stated the following:

> FEI's forecast for growth capital expenditures is related to attaching new service lines to the FEI system. It is not directly linked to the additions in Figures 3-2 and 3-3 as those are net customer additions. Net customer additions refers to the net incremental customer total after considering new service line additions and any customers leaving the system.

11.1 Please explain how FEI calculates the forecast for capital additions for growth related distribution capital.

Response:

FEFN's forecast growth capital additions are calculated based on historic actual activity. The table below shows the 2013 to 2017 actual and average service line additions to the system.

	2013	2014	2015	2016	2017	5 Year Average
Actual service line additions	15	5	12	7	6	9

Using the 2013 to 2017 service line additions as a reference and also considering the potential for additional service lines in the expanded Prophet River franchise area, in 2019 and 2020 FEI is forecasting to add 10 and 12 service lines respectively. An average service line allowance is then applied to these service line additions to arrive at the forecast growth capital. A summary of the calculation is included below for reference.

	2019	2020
Service line additions	10	12
Service line allowance	2,250	2,250
Growth capital	$23,000	$ 28,000

11.1.1 As part of the above response, please explain how, if at all, the declining trend in customer additions impacts growth-related distribution capital spending.

Response:

The declining trend in net customer additions could impact FEFN's growth-related distribution capital. Over time the decline in net additions could indicate a lower growth environment where attaching new customers to the system will become less likely. However, as noted in the response to BCUC IR 1.14.2 in the FEFN 2017-2018 RRA proceeding, there is not a direct link between net customer additions and growth related capital. In a given year FEFN could see negative net customer additions but still see growth related capital expenditures for new service line additions.

11.2 Please provide a table with the following forecast for each of FEFN's rate schedules for 2019 and 2020: (i) the number of new customer service line additions and (ii) the number of customers leaving the system. Please ensure that the net of (i) and (ii) reconciles with the information provided in Tables A2-2 and A3-5.

Response:

The service line addition forecast used to forecast growth related distribution capital is not directly linked to the net customer additions forecast used in Table A2-2 of the Application. The service line addition forecast is based off of historic actual service line additions, whereas the net customer additions forecast is largely based on the Conference Board of Canada Provincial Medium Term forecast.

As summarized in the table below, while the two forecasts are developed separately, FEI is forecasting the 2019 and 2020 customers leaving the FEFN system to be 28 and 32, respectively. The one-time PRFN adjustment as a result of the Prophet River Extension is estimated to be a move from the one existing Rate Schedule 3 customer to 53 Rate Schedule 1 customers and six Rate Schedule 2 customers (i.e. 53 + 6 – 1 = 58).

	2019F	**2020F**
Service Line Additions	10	12
Customers Leaving System	(28)	(32)
Net customer additions	***(18)***	***(20)***
PRFN Adjustments	58	-
Reconciliation with Table A2-2	***40***	***(20)***
	2019F	**2020F**
Table A3-5 Forecast of Additions (Line 28)	32	(23)
Table A3-6 Rate Schedule 2 Net Additions	9	3
Table A3-6 Rate Schedule 3 Net Additions	(1)	-
Reconciliation with Table A3-5 and A3-6	***40***	***(20)***

11.3 Please provide the actual growth related distribution capital expenditures for years 2012 through 2017 and projected expenditures for 2018.

Response:

FEI understands the intent of the question to be requesting distribution growth capital additions that enter rate base for 2012 to 2017, and projected additions for 2018. This information is presented in the table below.

Growth Related Distribution Capital Plant Additions

In '000s	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Projected
New Customer Mains	1	10	(1)	11	-	12	14
New Customer Services	26	3	7	10	18	11	19
New Customer Meters	11	8	1	4	7	1	0
Subtotal Growth Distribution Capital Additions	**38**	**21**	**7**	**25**	**25**	**24**	**33**
Other Distribution Additions	39	208	301	216	556	278	366
Total Distribution Additions	**77**	**229**	**308**	**241**	**581**	**302**	**399**

12.0 Reference: DEFERRAL ACCOUNTS

Exhibit B-1, Sections 1.3 and 8.4, Table 8-4, pp. 6 and 50

Energy Efficiency & Conservation (EEC) deferral account

Table 8-4 on page 50 of the Application shows the following balances in the EEC deferral account:

- Approved 2017 - $54,000
- Approved 2018 - $71,000
- Forecast 2019 - $135,000
- Forecast 2020 - $182,000

On page 6 of the Application, FEI states that the approvals sought for FEFN will be impacted by FEI's 2019-2022 Demand Side Management (DSM) Application, which includes an increase in DSM expenditures. FEI further states that if a decision is received for the DSM Application in time, FEI will incorporate the DSM Application decision in its evidentiary update or compliance filing to this Application.

12.1 Please clarify if the increased DSM spending requested in the FEI 2019 – 2022 DSM Application has been included in the EEC deferral account balances forecast for 2019 and 2020 in Table 8-4.

Response:

The increased spending requested in the FEI 2019 – 2022 DSM Application has not been included in the EEC deferral account balances forecast for 2019 and 2020 of $135 thousand and $182 thousand, respectively, in Table 8-4 of the Application. Once a decision has been received from the BCUC on FEI's 2019 – 2022 DSM Application, FEI will include the impacts to FEFN in the compliance filing to this application.

12.1.1 If yes, please clarify if this was done in error and file a revised Table 8-4 if necessary.

Response:

Please refer to the response to BCUC IR 1.12.1.

12.1.2 If no, please explain the increase in the EEC deferral account balance forecast for 2019 and 2020.

Response:

The amounts from Table 8-4 of the Application that are quoted in the pre-amble above are the approved/forecasted mid-year balances of the deferral account. The forecasted additions to the deferral account and the allocation factor are provided in the table below:

Additions ($000s)	Amount for allocation	Allocation factor	Total Addition
2017 Approved	$ 15,000	0.2000%	$ 30
2018 Approved	15,000	0.2000%	30
2019 Forecast	36,000	0.2390%	86
2020 Forecast	36,000	0.2390%	86

The increase in the EEC deferral account balance forecast for 2019 and 2020 is due to a change in the allocation base used to allocate costs from FEI to FEFN. Prior to 2019, forecasted costs were allocated to FEFN based on the allowed FEI Rate Base expenditure limit of $15 million multiplied by the allocation factor, rounded to the nearest tenth of a percent (percentage of customers in FEFN over total customers). For the 2019 and 2020 forecasted additions, costs have been allocated to FEFN based on a total estimated FEI Rate Base and Non-Rate Base expenditure limit of $36 million, multiplied by the same allocation factor. The forecasted addition of $36 million was based on the 2018 approved expenditure limit of $35.874 million.

Prior to 2019, FEI allocated EEC expenditures to FEFN using a percentage of the forecasted FEI Rate Base addition only. FEI chose this allocation method to be conservative and to ensure the total forecasted rate base additions for FEI and FEFN, excluding transfers from the non-rate base EEC Incentive account, would equal $15 million combined. However, actual additions over the $15 million and up to the funding cap are included in the FEI non-rate base EEC incentive account and rolled over into the FEI rate base EEC deferral account the following year. In the past, none of these expenditures were forecasted within the FEFN EEC deferral account. Given FEI's recent experience to spend up to or near the funding cap, FEI believes an allocation of a percentage of the total approved expenditure limit is more appropriate.

Lastly, FEI notes that while these forecasts have impacts on the test period and the associated rate base and earned return, the opening balance of the FEFN EEC deferral account in the following test period is trued-up to the actual deferral account balance, which includes actual expenditures for FEFN customer incentives only.

13.0 Reference: DEFERRAL ACCOUNTS

Exhibit B-1, Section 8.4, pp. 53-54; FEFN 2017-2018 RRA proceeding, Exhibit B-1, pp. 38-39

Fort Nelson First Nations Right-of-Way Agreement

On page 53 of the Application, FEI states:

> As at June 30, 2018, FEI has incurred actuals costs of $111 thousand related to this Agreement. Based on the most recent appraisal available, the remaining fee for a 99 year agreement would be approximately $236 thousand, or a 10 year term prepaid fee at $62 thousand with each subsequent 10 year term fee being determined by appraisal at the time of renewal.

On page 39 of the FEFN 2017-2018 RRA, FEI states:

> To date, only approximately $110 thousand of the projected $410 thousand spending has been incurred with the remainder projected to be spent before the end of 2016.

13.1 Please explain the reasons for the delay in completing the Fort Nelson First Nations Right-of-Way (ROW) Agreement.

<u>Response:</u>

Negotiations with the Fort Nelson First Nation for a new Indian Act S. 28 (2) permit have, until recently, been stalled due to staff changes at the Fort Nelson First Nation band administration. FEI community Relations representatives have been in regular contact since the suspension of activities in late 2017. Recently, Fort Nelson First Nation has indicated a desire to resume negotiations and has requested information and documentation from FEI of the most recent file correspondence. FEI believes most substantive elements of the new agreement are resolved and that an agreement can be achieved in 2019, provided the Fort Nelson First Nation has sufficient resources available.

13.2 Please provide an update on the following:

i. The timing of when FEI anticipates the ROW agreement will be completed;

ii. The actual costs incurred to date to complete the agreement, if different from the $111,000 stated on page 53 of the Application; and

iii. Whether, based on the description provided on page 53 of the Application, the total expected cost of the ROW agreement is $347,000($111,000 plus $236,000), and if not, what the total expected cost of the ROW agreement is.

Response:

i. FEI anticipates the ROW agreement, a permit issued under Indian Act S. 28 (2), will be completed in 2019. Most of the substantive terms of the draft permit have been accepted by the parties; however certain terms still need decisions from the Fort Nelson First Nation. Due to staffing changes in the Fort Nelson First Nation band administration, no negotiations to progress the agreement were conducted to date in 2018. The band has very recently reached out to FEI to resume negotiations.

ii. FEI has not incurred any additional costs to date beyond the $111,000 stated on page 53 of the Application.

The remainder of this response is redacted pursuant to Section 18 of the BCUC's Rules of Practice and Procedure regarding confidential documents established by Order G-1-16. The redaction is necessary because it contains commercially sensitive information that, if disclosed, may prejudice negotiations with the Fort Nelson First Nation in future contract negotiations. A confidential version of this response is being filed with the BCUC under separate cover and can be made available to registered parties upon providing a signed form of Confidentiality Declaration and Undertaking acceptable to the BCUC.

iii. [redacted]

F. CPCN FOR PROPHET RIVER FIRST NATION EXTENSION

14.0 Reference: CPCN FOR PROPHET RIVER FIRST NATION (PRFN) EXTENSION

Exhibit B-1, Section 10.1, p. 58

Certificate of Public Convenience and Necessity (CPCN) description and cost

On page 58 of the Application, FEI states the following:

> If the CPCN for the Prophet River Extension is approved, FEI will proceed to install individual gas meters to the 53 residential and six commercial properties. As part of the work, FEI will conduct leak survey and inspection per the standard procedure for pipeline previously not owned by FEI and relocate risers if necessary to fit with the new meters. The estimated capital expenditure for the work is $104,000.

14.1 Please provide a detailed cost breakdown and description of the items that make up the $104,000 estimate.

Response:

The table below provides a cost breakdown of the $104,000 estimate:

Categories	$000s	Note
Meter		
Hardware	32	53 residential meters at approx. $150 per unit and six commercial meter sets at approx. $4,000 per unit
Installation	14	Approx. $200 per residential unit and approx. $1,000 per commercial unit; meter installation capitalized at 86 percent and 14 percent expensed
Subtotal	**46**	
Main and Service		
Riser Relocation	29	Based on alterations required for 19 service locations at $1,500/premise
Leak Survey	3	Leak survey cost based on 2016 historical FEI cost for completing survey
Mains Inspection	15	To excavate and inspect three locations identified with third party work completed previously
Planning and Admin	3	Based on 5% of Main and Service Project total
Contingency	8	
Subtotal	**58**	
TOTAL	**104**	

14.1.1 If a contingency amount has been included, please provide the amount and how it was determined. If a contingency amount has not been included, please explain why not.

Response:

A contingency of $8 thousand or 16 percent was included for the Main and Service portion of the Project ($50 thousand). The 16 percent contingency allows for a three-person FEI crew to have three days plus materials to complete a main alteration if it is deemed to be required. This would allow for an alteration at one of the three locations that were identified for inspection.

14.2 Please explain if FEI has purchased distribution system assets in the past. If so, please describe in detail the two most recent distribution system asset purchases and compare and contrast these purchases to the requested CPCN for the PRFN extension.

Response:

In 2002, FEI's predecessor parent company acquired the shares of Centra Gas BC Inc. and Centra Gas Whistler Inc., which provided gas distribution service to Vancouver Island and Whistler, respectively; in 2015 the assets of these companies were amalgamated into FEI. Historically, acquisitions for FEI or FEI's parent company (and their predecessor companies) have involved acquisitions of all the issued and outstanding shares of certain public utilities, and, through approval of those share acquisitions, FEI has acquired the distribution system assets.

In this case, for the PRFN extension, Prophet River First Nation owns the assets but does not own and operate the assets as a separate utility company; therefore, a share purchase is not an option. Considering that the seller is not a public utility, that the PRFN distribution system is very small (at approximately 3 km) and that the purchase price per the Asset Purchase Agreement is a nominal value of ten dollars, the PRFN extension is very unique and different in nature than FEI's previous share purchases.

14.3 Please provide a detailed explanation of FEI's typical due diligence practices prior to purchasing system assets from outside parties.

Response:

The following are the typical steps of FEI's due diligence prior to purchasing system assets from third parties.

1. Desktop review of materials within the system asset. This would include a review of the following:
   a. Age of the materials and review of any industry known issues surrounding the age of the materials.
   b. Condition of materials, this would include pipe and coating reports, anecdotal information from installers and operators if available.
   c. Review of pressure ratings of installed materials.
   d. Desktop review of available asset records for quality and completeness.
   e. Review of the maintenance and operating practices based on available records.
2. Review of the construction/installation practices. This would involve a desktop review of approximately 10% of main and service installations based on available records.
3. Site investigations of existing service risers and proposed meter set locations.
4. Review of leak history. This would include a review of recorded leaks and mapping information available for the asset.
5. Leak survey of system. This involves a complete leak survey of the system assets, not including downstream of the premise regulators/meter sets, which is not part of the system asset being reviewed for purchase.
6. Field review of the equipment installed including regulators.

FEI notes that the above steps may evolve depending on future projects

14.3.1 As part of the above response, please explain if FEI's approach to the proposed purchase of PRFN's gas distribution system is consistent with FEI's usual due diligence practices.

Response:

The purchase of the PRFN's gas distribution system is consistent with FEI's due diligence practice as listed in response to BCUC IR 1.14.3 with the exception of the timing of the leak survey. As explained in the response to BCUC IR 1.14.4, FEI has deviated from this practice due its direct involvement in the operation and maintenance of the PRFN distribution system, including having recently completed a leak survey on the system.

14.4 Please explain whether it is FEI's standard procedure to conduct a leak survey and inspection only after a pipeline is acquired, and not before, as proposed in this Application.

Response:

A leak survey would typically be completed prior to purchase of a pipeline system. However, in the case of the Prophet River Extension, FEI has had direct involvement in the operation and maintenance of the PRFN distribution system, and completed a leak survey for the community in 2016 and no issues were found. Since the leak survey was completed by FEFN staff and typically leak surveys are completed on a five-year cycle, there is high confidence there will not be any new findings from completing another leak survey that would significantly impact the acquisition of the system.

BC Gas (predecessor of FEI) installed the distribution system and upstream station/meter in 1989. Since then, FEI has been involved in the ongoing operation and maintenance of this system. FEI's Northern Operations team has a close working relationship with the PRFN and ongoing involvement in the operation and maintenance of the system has provided FEI with detailed information of the system that would not normally be present prior to acquisition of an asset.

In addition to the leak survey in 2016, an experienced FEFN technician completed an inspection of the PRFN system to review the number of service alterations that would be required, number and size of meter sets required and a visual inspection of existing above grade assets. This information was used to provide a cost estimate as shown in response to BCUC IR 1.14.1 for the main and service work that will be required to install individual meters on each premise and confirm compliance with FEI standards.

14.4.1 If it is not FEI's standard procedure, please explain why FEI is proposing to take this approach in the proposed purchase of PRFN's distribution system assets and why a deviation from FEI's standard practice is appropriate in this case.

Response:

FEI is deviating from the procedure in terms of leak survey listed in response to BCUC IR 1.14.3 because a leak survey was completed recently by FEI in 2016 and also because of FEI's familiarity with the PRFN system, as discussed in response to BCUC IR 1.14.4. Due to our knowledge of the system and the historical data available, FEI believes a deviation from standard practice is appropriate and low risk in nature for the case of the PRFN distribution system.

14.5 Please discuss the feasibility of FEI conducting a leak survey and inspection prior to acquiring the pipeline and how such an approach would impact the proposed purchase.

Response:

The system is not extensive and can be leak surveyed. However, it is not practical, nor efficient, to conduct a leak survey during the winter months. Frozen ground prevents gas from escaping to the atmosphere, which makes leak surveying during frost conditions inaccurate. The next opportunity to conduct an efficient, quality leak survey will be late spring through to early fall in the Prophet River area, which if required prior to purchase, could delay the Project, including the individual meter installations, to 2020.

A below-grade inspection of the distribution system is feasible prior to purchase, but due to the timing of the proposed purchase, the required winter excavations would add significant cost to the project. To complete the excavations during the winter months a hydro-vac would be required to remove the frost layer. The cost of a hydro-vac in the Fort Nelson area is approx. $3,000 per day and this would be an additional cost to the budgeted amount of $104 thousand.

FEI does not expect completing a new leak survey and inspection prior to acquiring the system will reveal findings that are not already anticipated or that would materially impact the proposed purchase, due to the following:

- FEI completed a leak survey of the PRFN system recently in 2016.
- There is no pavement in PRFN; therefore, the likelihood of a leak being present and undetected is small. FEI injects odorant into the distribution system, including PRFN system, as the primary warning system in place to ensure leaks can be detected by the general public.
- An above-grade inspection was completed on the PRFN system by FEI staff.
- The system was installed by BC Gas (predecessor of FEI) and has been maintained by FEI. FEI therefore has extensive knowledge of the condition of the below-grade system and does not anticipate a below-grade inspection will reveal any findings that would impact the proposed purchase.

Given that FEI has high confidence in the integrity of the system, FEI does not believe it is reasonable to delay the Project for a year or more so that a leak survey and inspection can be completed prior to the acquisition.

14.5.1 As part of the above response, please discuss the benefits of conducting the inspections prior to purchasing the distribution assets, the impact on FEI's estimated costs, and the impact on the project timeline.

Response:

Please refer to the response to BCUC IR 1.14.5. FEI notes that it did complete an inspection of the above-grade assets to determine the number of service alterations that needed to be completed and the costs for these alterations are reflected in the $104 thousand estimate.

14.6 Please describe in detail the potential risks and associated costs which FEI might face as a result of not conducting a leak survey and inspection of the system's condition prior to purchasing the PRFN's distribution system.

Response:

As discussed in responses to BCUC IRs 1.14.4, 1.14.4.1, and 1.14.5, FEI has high confidence in the integrity of the system due to its familiarity and extensive knowledge of the system. FEI believe the potential of risks due to not conducting a leak survey and below-grade inspection of the system prior to purchasing is low.

Furthermore, the costs associated with the low risk of not conducting a leak survey and below-grade inspection prior to purchasing the system are considered to be immaterial. Based on the fact that the PRFN system is limited to NPS 2 PE mains with no pavement repairs required (i.e., the PRFN community is not paved), the estimated cost for a leak repair is estimated to range from $3,200 to $9,600. This estimate is based on a two-person local crew and an excavator for a cost of $3,200 per day and maximum three days for the repair. This range of costs would add approximately three to nine percent to the project cost estimate of $104 thousand. As shown in response to BCUC IR 1.17.1, a 20 percent increase in the estimated capital cost of $104 thousand will only lead to a cumulative rate impact of 0.09 percent over two years, or $0.50 over two years for an average FEFN residential customer consuming 125 GJ per year.

The low risk and the minimal potential rate impact of the risk support FEI's decision for not delaying the project for at least a year to complete a leak survey and below-grade inspection after the winter and prior to purchasing the system.

14.6.1 Please explain how FEI intends to mitigate the impact of the above-described risks and costs on the existing FEFN ratepayers.

Response:

As discussed in response to BCUC IR 1.14.6, FEI believes the risks of undetected leak and unplanned repair is low. However, FEI has taken or will take the following mitigation measures, some of which have already been undertaken prior to the purchase and some which are planned to be undertaken after the purchase.

Services:

An experienced FEI technician has completed a site investigation of each of the 59 proposed new meter set locations to determine the number of alterations required and the level of effort required to complete the alterations.

Mains:

PRFN has disclosed to FEI three locations where work was completed on the distribution system by third party contractors. These locations will be excavated and inspected to ensure the installations meet FEI standards. The inspections have been budgeted for and will be completed by FEI crews. A contingency has been included to account for the possible alteration of one of the third party installations.

Leak Survey:

FEI has been conducting leak surveys for PRFN, most recently in 2016, which have found no issues. FEI plans to conduct a new leak survey once the purchase is complete and weather allows FEI to re-confirm that there are no detectable leaks within the system. Leak surveys are typically completed on a five-year interval; therefore, completing a leak survey in 2019, after the purchase of the PRFN system, will exceed FEI's standards for existing assets owned by FEI and will mitigate the risk of undetected leaks within the Prophet River system.

New Meter Installations:

Meter installation is a core part of FEI operations and costs are well known based on recent installations in the Fort Nelson area which is a reasonable proxy for the Prophet River community based on location, access, and population density. An FEI manager familiar with the area will be assigned to the project to manage the work and to ensure the installations are completed in a timely manner and within the allocated budgets. A FEI planner familiar with the area will also be assigned to complete all the design work for the new meter installations and the service/main alterations. All of these are included in the cost estimates for the meter installation.

14.7 In the event that the pipeline's condition is worse than anticipated by FEI, would FEI be able to recover from the PRFN the costs of restoring the pipeline to an acceptable condition?

<u>Response:</u>

FEI would not be able to recover restoration costs in the event that the pipeline's condition is worse than anticipated by FEI.

The Asset Purchase Agreement expressly provides that the pipeline is being purchased by FEI on an "as is" basis, and that the PRFN is not making any representation or warranty, express or implied, with respect to the value, condition, merchantability or fitness for use of the pipeline. Additionally, the Asset Purchase Agreement contains an acknowledgment by FEI that in entering into the Asset Purchase Agreement, FEI has relied upon and will rely entirely and solely upon its own inspections and investigations with respect to the pipeline.

14.7.1 Please clarify if the acquisition of the PRFN distribution system is on an "as is where is" basis. If yes, please provide the rationale for this.

Response:

Yes, the acquisition of the PRFN distribution system is on an "as is where is" basis regarding the physical condition of the assets.

As explained in the response to BCUC IR 1.14.4.1, FEI is familiar with the physical condition of the assets and as such, does not require representations by PRFN regarding the physical condition of the assets. Further, an "as is" basis regarding the physical condition of the assets is a reasonable commercial bargain as FEI will only pay PRFN a token sum for the assets.

However, it should be noted that the "as is" basis is limited to the physical condition of the assets. The Asset Purchase Agreement, as currently drafted, contains representations by the PFRN stating that it is the only owner of the assets, that it is able to sell the assets to FEI without encumbrances, and that there are no legal claims by third parties to the assets or threatening the assets. Furthermore, the PPRN will represent that it has provided FEI with all material documents, data and information relating to the condition or operation of the assets known to PFRN or in its possession or control that are reasonably expected to be material to FEI, including without limitation, technical reports and maintenance logs.

As such, the terms upon which FEI has agreed to purchase the PRFN gas distribution system are reasonable and prudent.

14.8 Does FEI anticipate encountering any issues with installing individual gas meters to the 53 residential and six commercial properties? Please discuss.

Response:

FEI does not anticipate any significant issues. FEI staff have completed an inspection of the 53 residential and 6 commercial properties. There are alterations required to a portion of the services to allow for individual meter sets to be installed, and the cost this work has been accounted for in the budget. Installing meter sets is routine work for FEI, and we do not anticipate any issues with the physical installation of the meter sets. There is inconvenience for the customers during installation of a new meter set, as it requires a service disruption to complete the installation and there will be construction activities to complete the required work on the services and mains in the community. To mitigate any issues associated with the disturbance to customers, FEI has visited the site with the PRFN and communicated the process for the installation of individual meter sets. We will continue to work directly with the PRFN to avoid potential issues. We have also explained the need to work closely with residents on the work as premises/structures will be without gas for short periods of time. This will take coordination with the PRFN and/or any gas fitting contractors hired to complete the downstream work. There will be short durations of gas interruptions to individual premises/structures, but the residents will have advance warning of required service disruptions.

14.8.1 Has FEI examined the premises where the individual gas meters are planned to be installed to assess whether any issues or impediments exist? If yes, please describe the results of these examinations. If not, please explain why not.

Response:

FEI staff have visited the site and assessed the need to move (alter) service/meter locations to meet the Gas Safety Code in BC. A total of 18 services/meter locations have been identified as requiring alteration and the associated costs have been included in the planned expenditures.

15.0 Reference: CPCN FOR PRFN EXTENSION

Exhibit B-1, Sections 10.1 and 10.5, pp. 58 and 61

Asset Purchase Agreement and permitting

On page 58 of the Application, FEI states:

> FEI is expecting to complete the Asset Purchase Agreement with PRFN in the fall of 2018 and the work to install individual gas meters at each property will commence and be completed in 2019….FEFN will file the signed Asset Purchase Agreement when it becomes available.

15.1 Please discuss the current status of the Asset Purchase Agreement and provide a copy of the executed agreement, if available.

Response:

Negotiations on the Asset Purchase Agreement have been completed with the PRFN; however, the Agreement has not yet been executed. FEI has not yet received a copy of the executed agreement.

15.1.1 If the executed copy of the agreement is not yet available, please provide a copy of the most current draft of the agreement.

Response:

Please refer to Attachment 15.1.1 for a copy of the most current draft of the agreement.

Page 61 of the Application, FEI states:

> The Asset Purchase Agreement will be conditional upon FEI obtaining a right of way permit pursuant to Section 28(2) of the Indian Act. The permit will grant FEI the necessary land tenure rights to own, operate and maintain the gas distribution system on the PRFN reserve. FEI will be engaging with the Ministry of Indian Affairs and Northern Development (representing Her Majesty the Queen in Right of Canada) and the PRFN to negotiate acceptable terms.

15.2 Please provide a breakdown of the total estimated cost of obtaining the right of way permit, including the anticipated negotiation costs and permit fees. Please also indicate which costs would be capitalized versus expensed.

Response:

This response also addresses BCUC IRs 1.15.3, 1.15.3.1, and 1.15.3.2.

FEI expects the costs to be incurred for acquiring the Section 28(2) right of way permit from the Ministry of Indian Affairs and Northern Development (representing Her Majesty the Queen in Right of Canada) will be immaterial. As the PRFN system is an existing system, FEI is anticipating the costs associated with archeology or environmental assessments will be minimal or not required. FEI also expects that a blanket right of way will be provided to FEI by PRFN and therefore a land survey will not be required.

All work involved in obtaining the right of way will be completed by FEI's staff and will not be incremental to FEI's 2019 forecasted revenue requirement. Any costs will be allocated to FEFN as part of the FEFN's 2019 shared service fee. In negotiations to date, the PFRN have not required compensation or rent in exchange for the Section 28(2) permit rights. FEI notes the right of way compensation, should there be any, will be capitalized.

15.3 Please clarify if FEI has included the costs associated with obtaining the right of way permit as part of the $104,000 estimated project cost.

Response:

No. Please refer to the response to BCUC IR 1.15.2 for more detail.

15.3.1 If not, please explain why not and explain how FEI intends to recover the costs associated with obtaining the right of way permit.

Response:

Please refer to the response to BCUC IR 1.15.2.

15.3.2 If not, please update the rate impact forecast for 2019 and 2020 for the proposed PRFN asset purchase with the estimated cost of obtaining the right of way permit.

Response:

Please refer to the response to BCUC IR 1.15.2.

15.4 Does the potential cost of obtaining the right of way permit represent a risk to FEI's existing Fort Nelson ratepayers? Please explain why or why not.

Response:

The potential cost of obtaining the right of way permit is expected to be of minimal risk to FEFN's ratepayers because FEI anticipates the permit fees payable to the band under the permit agreement will be nominal, if not nil, as the purpose of the permit is to provide services to the PRFN. The Asset Purchase Agreement includes a subject condition in favour of FEI that the right of way permit granted by the PRFN and Canada to FEI for the gas distribution system shall be on "terms satisfactory to" FEI. A subject condition means that FEI has the option of declining to purchase the gas distribution system if the condition is not met.

15.5 Please discuss when FEI anticipates finalizing the right of way permit.

Response:

FEI expects to submit the Section 28(2) permit application shortly. Receipt of a finalized right of way permit is expected within 6 months but that depends on the timing of the Ministry of Indian Affairs and Northern Development approval process.

15.5.1 Please discuss if there are any implications, financial or otherwise, if the right of way permit is not obtained by the date indicated in the response to the preceding IR.

Response:

The Asset Purchase Agreement is conditional upon FEI obtaining a Section 28(2) permit. If the timeline to obtain the right of way permit is longer than anticipated, the individual meter installations might be delayed until 2020 as it is not possible to complete the installation during the winter of 2019. There will, however, be no financial implication to obtaining the right of way permit later than expected.

15.6 Please discuss whether FEI anticipates any material conditions to obtain the right of way permit approval from the Ministry of Indian Affairs and Northern Development and PRFN.

Response:

Because the PRFN gas distribution pipeline system is not a proposed or new installation, FEI does not expect any material conditions or associated costs from the Ministry of Indian Affairs and Northern Development and PRFN.

15.6.1 If material conditions are anticipated, please discuss in detail what these conditions would be, and provide the estimated costs of complying with these conditions.

Response:

Please refer to the response to BCUC IR 1.15.6.

15.6.1.1 If applicable, please confirm, or explain otherwise, that the estimated cost of complying with these conditions have been included in the $104,000 capital cost estimate.

Response:

Please refer to the response to BCUC IR 1.15.6. As FEI does not anticipate incurring costs associated with complying with the Ministry of Indian Affairs and Northern Development Section 28(2) permit conditions, no costs were included in the $104 thousand cost estimate.

15.6.1.2 If applicable, please update the rate impact forecast for 2019 and 2020 for the proposed PRFN asset purchase with the estimated cost of complying with these conditions.

Response:

Please refer to the response to BCUC IR 1.15.6.

15.7 Please provide a detailed project timeline which includes, among things, the following:

- The anticipated date for obtaining the right of way permit;
- The anticipated date for completing and executing the Asset Purchase Agreement;
- The timing of the pipeline inspections;
- The timing of the installation of the individual meters;
- The service changeover date from PRFN providing service to its individual members to FEI providing service to the individual PRFN members; and
- The commencement of individual billing to the PRFN members.

Response:

Please see the following table which provides a detailed project timeline:

No.	Milestone	Anticipated Complete	Note/Reference (If any)
1	Completion and execution of Asset Purchase Agreement	End of 2018	
2	Section 28(2) right of way permit	June 2019	Please refer to the response to BCUC IR 1.15.5.
3	Main and service inspection	Summer 2019	Subject to above conditions but will also be limited by weather conditions. Inspection not feasible between winter and spring which will also disrupt heating season in the area
4	Meter installations	Summer 2019	Subject to above conditions but will also be limited by weather conditions. Meter installation not feasible between winter and spring which will also disrupt heating season in the area
5	Service changeover	Fall 2019	Will occur once individual meters are installed therefore, subject to above conditions
6	Individual billing to PRFN members	N/A	As discussed in response to BCUC IR 1.16.4, once the individual meters are installed, PRFN will continue to be the customer for each individual meter installed. PRFN will, at its discretion, work with individual members and the company to establish individual gas accounts

16.0 Reference: CPCN FOR PRFN EXTENSION

Exhibit B-1, Sections 10.4 and 10.6.4, pp. 61, and 63

CPCN description and consultation

On page 61 of the Application, FEI states that it was first approached by PRFN to assume ownership and operation of the gas distribution system within PRFN in February 2016. FEI further states that "PRFN does not currently charge its members for use of the system" and that the PRFN "has agreed to backstop payment should its members fail to make payment to FEI."

FEI states on page 63 of the Application that "PRFN and its members will continue to receive natural gas service from FEI via FEFN regardless of the purchase of the assets. FEI's service to PRFN will not change as a result of the transaction."

16.1 Please clarify FEI's statement on page 63 of the Application (provided in the above preamble). Specifically, please clarify if FEI will now be providing service to individual PRFN members and therefore will be billing the individual members and responding to any customer service-related issues.

Response:

FEI's statement on page 63 of the Application and shown in the preamble above is referring to the fact that natural gas will continue to be delivered to PRFN from FEI via FEFN regardless if the CPCN is approved by BCUC or not. FEI's delivery of natural gas to PRFN will not be interrupted or stopped if the CPCN is not approved by BCUC.

If a CPCN for the Prophet River Extension is granted by the BCUC, then FEI will install gas meter set assemblies at each existing premise on the existing system and individual gas accounts will be established for each premise. FEI will be responsible to respond to any customer-related issues from the individual gas account.

As discussed in the response to BCUC IR 1.16.4, once the individual meters are installed, PRFN will be the initial account holder for each premise/account established. FEI will be billing PRFN for the individual account until individual PRFN member establish their own gas account with FEI. PRFN will, at its discretion, work with individual PRFN members to establish individual gas accounts with FEI.

16.1.1 As part of the above response, please compare and contrast the service provided if the CPCN is approved, including how PRFN is billed now versus how the members will be billed if the CPCN is approved, and any customer service or operational related changes.

Response:

Please see the table below comparing the difference in billing, customer service and operation between the current condition and after individual meters are installed if the CPCN is approved:

	If CPCN is not approved (Current condition)	If CPCN is approved
Billing	One bill to PRFN for all gas consumed under Rate Schedule 3	53 individual residential bills under Rate Schedule 1 and six individual commercial bills under Rate Schedule 2. As discussed in response to BCUC IR 1.16.4, PRFN will be the initial account holder for all individual premise. PRFN will, at its discretion, work with individual PRFN members to establish individual gas accounts with FEI
Customer Service	FEI has a relationship with one customer/account. FEFN responds to billing and customer service related matters associated with a single customer account.	Once individual PRFN members establish individual gas accounts with FEI, FEI will have a relationship with each individually metered customers and will respond to billing and customer service related matters with each individual customer. As discussed in response to BCUC IR 1.16.4, prior to the individual PRFN members establishing individual gas accounts with FEI, FEI will respond to customer service matters individually, but will respond to billing matters with PRFN as the account holder.
Operational	FEI maintains and responds to odor/emergency calls to PRFN including within the PRFN boundary. As discussed in FEI's response to BCUC IR 1.14.4.1, FEI has been involved in the ongoing operation and maintenance of PRFN distribution system.	FEI will maintain and respond to odor/emergency calls to PRFN including within PRFN boundary. FEI will be responsible to the operation and maintenance of the PRFN distribution system as the owner.

16.2 Does FEI anticipate any additional customer service issues given that the individual PRFN members have not previously been responsible for managing their own energy usage and utility bill payments? Please discuss.

Response:

FEI does not anticipate customer service issues resulting from PRFN members receiving individual energy bills. FEI is providing education and material to PRFN members through PRFN regarding ways customers can manage their energy costs including conservation tips, access to energy evaluations, energy efficient appliance rebates, funding for low income households and ways to manage energy costs through equal billing and automatic payments. As a customer of FEI, individual account holders will receive conservation and energy management information that FEI broadcasts to all account holders. Minimal costs are anticipated related to the transfer of this information to PRFN and its members.

PRFN has also addressed this issue by stating that low income households will receive energy subsidies from PRFN.

As discussed in response to BCUC IR 1.16.4, PRFN will be the initial account holder for all individual gas accounts and will continue to pay the utility bills. PRFN, at its discretion, will work with individual PRFN members to have the individual account transferred once all individual accounts are created.

16.2.1 Please discuss how, if at all, FEI intends to educate PRFN's members about energy conservation measures and ways to manage their utility costs before or concurrent with the switchover to individual metering and provide an estimate of the costs, if applicable, of such initiatives.

Response:

Please refer to the response to BCUC IR 1.16.2.

16.3 Please discuss in detail the consultation process between FEI and the PRFN and its members regarding the CPCN and the resulting impacts (i.e. billing, conflict resolution, provision of service, etc.) to the PRFN members.

Response:

FEI began discussions with PRFN in February 2016 responding to PRFN's request that FEI purchase and operate the system including the installation of individual gas meters at each existing premise on the system. PRFN has been represented by PRFN's Band Manager, Project Manager, and Housing Coordinator.

Initial discussions through 2016 were conducted through phone meetings between PRFN and FEI. During these discussions the process for the transfer of the system to FEI was determined and explained to PRFN. Information related to the billing process including the establishment of customer accounts, conflict resolution and provision of service were discussed and explained.

In February of 2017, FEI representatives met with PRFN's team to identify if further information was required and to confirm if PRFN had all the information it required in order to proceed with the transfer. PRFN requested that FEI proceed with the creation of a Purchase Agreement and other necessary documents required to facilitate the transfer. Quarterly discussions with PRFN throughout 2018 were held to provide an update on the status of the transfer including necessary documentation and approvals.

16.3.1 Please describe any issues or concerns raised during the consultations, the measures taken or planned to address issues or concerns, or an explanation of why no further action is required to address an issue or concern.

Response:

FEI has addressed all known issues and concerns raised during the consultation process with PRFN. These issues were mainly related to confirmation of responsibility for emergency response, system upgrades and future expansion of the system.

FEI anticipates the need to provide information to PRFN and its members through the transition process related to construction activities and temporary service outages that will result from the asset transfer including the installation of individual meter sets. In addition, FEI will continue to support PRFN with information including ways customers can manage their energy costs including conservation tips, access to energy evaluations, energy efficient appliance rebates, funding for low income households and ways to manage energy costs through equal billing and automatic payments.

16.3.2 Please identify any outstanding issues or concerns.

Response:

There are no outstanding issues or concerns from the PRFN.

16.4 Please discuss whether the PRFN members have been notified as to this potential change in ownership and the resulting impacts to the individual members (i.e. that members will be individually metered and will be required to pay their own utility bills).

Response:

PRFN will disseminate information regarding the change of ownership and resulting effects to individual members directly. FEI has provided PRFN with information related to the change of ownership including the application process for individual accounts, rate schedules, billing, conflict resolution, and provision of service etc. along with energy conservation and management information, applicable high efficiency appliance rebate programs, access to energy evaluations, programs for low income households and ways to manage energy costs through equal billing and automatic payments. FEI is unaware of what information has been communicated to members by PRFN.

FEI notes that PRFN will be the initial account holder for all 59 individual gas accounts that will be created as a result of the transfer of ownership and completion of construction work. PRFN will, at its discretion, work with individual members utilizing information provided by FEI as described above to transfer the individual account to the individual PRFN member.

Members with individual accounts will be responsible for their energy usage as compared to the current situation that sees PRFN absorbing all costs associated with energy usage. PRFN explains that low income households will receive subsidization from PRFN for energy costs.

16.5 Please indicate whether FEI has incurred any costs related to consultation with the PRFN regarding the CPCN. If yes, please explain how these costs have been recorded and how much has been incurred.

Response:

FEI estimates it had incurred approximately $10 thousand associated with time spent in meetings with PRFN and internal stakeholders. The estimate is based on one site visit that has occurred to meet with PRFN to discuss details of the Project and to inspect the site. The remainder of all interactions have been completed by phone and email. FEI notes that this is an estimate, as costs related to consultation with respect to this project or any project related to customer additions are not tracked on an individual project basis. FEI notes that the consultation work completed by FEI's staff is not incremental and is considered to have been allocated to FEFN as part of FEFN's shared service fee. Actual costs incurred in relation to FEFN may fluctuate from year to year, but the shared service fee is intended to represent a fair allocation of costs on an ongoing basis.

16.6 Please discuss if there is or will be a contractual agreement between FEI and the PRFN regarding the backstop payment.

Response:

FEI does not propose a contractual agreement with PRFN regarding the guarantee of the accounts of all the PRFN members. PRFN has stated throughout negotiations that PRFN does not wish members to lose gas service as a result of the transfer of the system to FEI and will assist its members, if needed, in relation to their gas service.

FEI will apply its usual policies when processing applications from PRFN band members for service. PRFN and FEI have discussed arrangements whereby PRFN could backstop the payment of a customer account if that account becomes delinquent. In keeping with FEI's established policies, such arrangement would be where PRFN is set up as a second point of contact in the event of a delinquent payment. Under this arrangement, PRFN will be advised of the situation and will be afforded the opportunity of addressing the situation via contact with the delinquent account holder and/or by making payment on the account holder's behalf.

16.6.1 If so, please provide a copy of the executed PRFN backstop agreement, if available. If it is not available, please discuss when FEI anticipates the agreement to be finalized and provide the most current draft of the agreement if applicable.

Response:

As per the response to BCUC IR 1.16.6, a backstop agreement is not required.

16.6.2 If not, please discuss why the backstop payment will not be part of a contractual agreement.

Response:

As discussed in the response to BCUC IR 1.16.6, PRFN's stated objective of not seeing members lose gas service as a result of delinquent accounts and FEI's existing policies and tariff terms and conditions negate the need for additional contractual agreements to address this concern.

16.7 Please discuss if there are any anticipated risks to the PRFN's ability to backstop its members' and businesses' utility bills to FEI.

Response:

PRFN's current account with FEI has been in good standing since its activation. Therefore, no additional risk is anticipated associated with PRFN's willingness or ability to cover delinquent payments of its members moving forward.

Please also refer to the responses to BCUC IRs 1.16.6, 1.16.6.1, and 1.16.6.2.

16.8 Please provide the expected average bill for a residential PRFN customer and for a commercial PRFN customer. Please explain all assumptions.

Response:

FEI does not have the historical demand of individual residential and commercial PRFN customers as PRFN currently does not have individual gas meters installed. FEI believes that using the 2019 average use per customer (UPC) forecasts for FEFN's residential Rate Schedule 1 and small commercial Rate Schedule 2 will be the best estimates for the expected average bill for PRFN customers as it is reasonable to believe that the residential and commercial properties are similar between PRFN and Fort Nelson. The table below shows an average bill for a residential PRFN customer and a commercial PRFN customers using the UPC forecasts of FEFN as shown in Section 4.5 of the Application.

	Residential RS 1	Commercial RS 2
2019 Average UPC Foreacst (GJ)	125	350
Jan 1, 2019 Proposed Rates		
Delivery Margin Related Charges		
Basic Charge	135.18	443.82
Delivery Charge	464.00	1,398.60
Rider 5 RSAM	24.88	69.65
Subtotal Delivery Margin Related Charge	488.88	1,468.25
Commodity Related Charge		
Storage and Transport	2.38	6.65
Cost of Gas	194.00	543.20
Subtotal of Commodity Related Charge	196.38	549.85
Total Average Annual Bill - 2019 ($)	820.43	2,461.92

16.9 In the event that the CPCN for the PRFN Extension is approved, please discuss whether the 53 residential and 6 commercial properties would be required to make a security deposit in accordance with FEI's General Terms and Conditions.

Response:

Existing protocols and processes for the creation of customer accounts will be followed. For new customer accounts, this includes the requirement for a credit check and/or security deposit.

For existing customers transferring accounts, established payment history is reviewed to establish whether additional security is required.

Based on the above protocols and processes, the six commercial accounts will remain with PRFN as the customer which will negate the need for a security deposit. The 53 residential accounts will initially be established with PRFN as the account holder which will negate the need for a security deposit.

When the individual PRFN members contact FEI to establish their own gas accounts and transfer service to their names, their accounts will be created following normal business practices which may include the need for a security deposit.

16.10 Please discuss the risks to FEI's existing Fort Nelson customers of the PRFN members not paying their utility bills and why, in FEI's view, the backstop agreement with the PRFN is adequate mitigation against these risks.

Response:

PRFN's established billing history as discussed in the response to BCUC IR 1.16.7 and the arrangement whereby PRFN will be set up as a second point of contact in the event of a delinquent payment as discussed in the response to BCUC IR 1.16.6, mitigate the need for a specific backstop agreement.

On page 63 of the Application, FEI states:

> PRFN indicated to FEI that they plan to expand their community in the near future, including new restaurants, hotels/motels, convenience stores and other retail spaces, a church, a Fire Hall and subdivision housings for PRFN members. PRFN expressed they would have no ability or resources to expand the existing gas distribution system to accommodate the anticipated growth in PRFN.

16.11 Please discuss if the PRFN have also agreed to backstop payment to FEI with respect to its members' and businesses' utility bills in the anticipated expanded PRFN community.

Response:

All new customer accounts associated with the expansion of the distribution system to service new commercial and residential customers will be subject to the terms and conditions of FEI's tariff. PRFN may intervene at its discretion to provide financial support to customer accounts it chooses to assist.

17.0 Reference: CPCN for PRFN Extension

Exhibit B-1, Sections 10.3 and 10.6, pp. 59 and 62, Table 10-1

Incremental Revenue Requirement Impacts to FEFN

On page 59 of the Application, FEI states:

> Currently, PRFN is a single Rate Schedule 3 (Rate 2.2 prior to the RDA Decision) customer in FEFN with an annual consumption of approximately 7,800 GJ.

On page 62 of the Application, FEI states:

> Based on an addition of ten dollars to FEFN's rate base in 2019 for purchasing the existing gas distribution system from PRFN, plus approximately $8 thousand in legal fees and the subsequent capital expenditure of approximately $104 thousand, and considering the incremental revenue from basic charges, the rate impacts are an increase of 0.24 percent in 2019 which will then be offset by a decrease of 0.25 percent in 2020 when compared to the approved 2018 RDA Rates.

Further on page 62, FEI provides the following table:

Table 10-1: Summary of Financial Analysis and Rate Impact of PRFN Project[30,31]

	2019	2020
Incremental Annual Revenue Requirement ($)	9,674	14,279
Offseting Additional Revenue from PRFN ($)	(3,622)	(14,487)
Net Incrmental Annual Revenue Requirement ($)	6,052	(208)
2018 Approved Revenue Requirement (G-196-17), ($000s)	2,489	2,489
Rate Impact (%) to Approved 2018 Rates	0.24%	(0.01%)
Rate Impact (%), Year-to-Year	0.24%	(0.25%)

17.1 Please update the table in the preamble above for the following scenarios:

i. A 20 percent increase in the estimated capital cost of $104,000;

ii. A reduction in the 7,800 GJ annual energy consumption by 10 percent;

iii. A reduction in the 7,800 GJ annual energy consumption by 20 percent;

iv. The combined effect of (i) and (ii) above; and

v. The combined effect of (i) and (iii) above.

Response:

Please see the updated tables below for each scenario. As shown in each of the tables below, the net impact to an average FEFN residential customer consuming 125 GJ per year ranges from a decrease of $0.04 to an increase of $1.94 over two years. FEI considers this range of impact to existing FEFN customers to be minimal.

Original Table 10-1 of the Application:

	2019	2020	Cumulative
Incremental Annual Revenue Requirement ($)	9,674	14,279	
Offseting Additional Revenue from PRFN ($)	(3,622)	(14,487)	
Net Incrmental Annual Revenue Requirement ($)	6,052	(208)	
2018 Approved Revenue Requirement (G-196-17), ($000s)	2,489	2,489	
Rate Impact (%) to Approved 2018 Rates	0.24%	(0.01%)	
Rate Impact (%), Year-to-Year	0.24%	(0.25%)	(0.01%)
Average Annual Rate Impact, Residential RS 1 ($)	1.40	(1.44)	(0.04)

i) A 20 percent increase in the estimated capital cost of $104,000:

	2019	2020	Cumulative
Incremental Annual Revenue Requirement ($)	9,852	16,640	
Offseting Additional Revenue from PRFN ($)	(3,622)	(14,487)	
Net Incrmental Annual Revenue Requirement ($)	6,230	2,153	
2018 Approved Revenue Requirement (G-196-17), ($000s)	2,489	2,489	
Rate Impact (%) to Approved 2018 Rates	0.25%	0.09%	
Rate Impact (%), Year-to-Year	0.25%	(0.16%)	0.09%
Average Annual Rate Impact, Residential RS 1 ($)	1.44	(0.94)	0.50

ii) A reduction in the 7,800 GJ annual energy consumption by 10 percent:

	2019	2020	Cumulative
Incremental Annual Revenue Requirement ($)	9,674	14,279	
Offseting Additional Revenue from PRFN ($)	(2,842)	(11,367)	
Net Incrmental Annual Revenue Requirement ($)	6,832	2,912	
2018 Approved Revenue Requirement (G-196-17), ($000s)	2,489	2,489	
Rate Impact (%) to Approved 2018 Rates	0.27%	0.12%	
Rate Impact (%), Year-to-Year	0.27%	(0.16%)	0.12%
Average Annual Rate Impact, Residential RS 1 ($)	1.58	(0.90)	0.67

iii) A reduction in the 7,800 GJ annual energy consumption by 20 percent:

	2019	2020	Cumulative
Incremental Annual Revenue Requirement ($)	9,674	14,279	
Offseting Additional Revenue from PRFN ($)	(2,061)	(8,246)	
Net Incrmental Annual Revenue Requirement ($)	7,613	6,033	
2018 Approved Revenue Requirement (G-196-17), ($000s)	2,489	2,489	
Rate Impact (%) to Approved 2018 Rates	0.31%	0.24%	
Rate Impact (%), Year-to-Year	0.31%	(0.06%)	0.24%
Average Annual Rate Impact, Residential RS 1 ($)	1.76	(0.36)	1.39

iv) The combined effect of (i) and (ii) above:

	2019	2020	Cumulative
Incremental Annual Revenue Requirement ($)	9,852	16,640	
Offseting Additional Revenue from PRFN ($)	(2,842)	(11,367)	
Net Incrmental Annual Revenue Requirement ($)	7,010	5,273	
2018 Approved Revenue Requirement (G-196-17), ($000s)	2,489	2,489	
Rate Impact (%) to Approved 2018 Rates	0.28%	0.21%	
Rate Impact (%), Year-to-Year	0.28%	(0.07%)	0.21%
Average Annual Rate Impact, Residential RS 1 ($)	1.62	(0.40)	1.22

v) The combined effect of (i) and (iii) above:

	2019	2020	Cumulative
Incremental Annual Revenue Requirement ($)	9,852	16,640	
Offseting Additional Revenue from PRFN ($)	(2,061)	(8,246)	
Net Incrmental Annual Revenue Requirement ($)	7,791	8,394	
2018 Approved Revenue Requirement (G-196-17), ($000s)	2,489	2,489	
Rate Impact (%) to Approved 2018 Rates	0.31%	0.34%	
Rate Impact (%), Year-to-Year	0.31%	0.02%	0.34%
Average Annual Rate Impact, Residential RS 1 ($)	1.80	0.14	1.94

17.2 In FEI's view, please discuss the likelihood of each of the scenarios in the preceding IR.

Response:

FEI believes the likelihood of any of the scenarios occurring is low. Regardless, the impact of each scenario or combination of some scenarios is considered to be immaterial as shown in the response to BCUC IR 1.17.1. The net impact to an average FEFN residential customer consuming an average of 125 GJ per year ranges from a decrease of $0.04 to an increase of $1.94 over two years.

The construction work of this Project which includes meter installations, riser relocations, main and service inspection, leak survey, etc., is the type of work that FEI has extensive experience with through daily operations. Furthermore, as shown in the responses to the BCUC IR 1.14 series, FEI is familiar with the PRFN system, and has extensive historical information and high confidence in the integrity of the system. Therefore, FEI does not believe the cost estimate of $104 thousand for the Project will change materially.

As for energy demand of individual PRFN members, it is difficult to predict what could happen after individual meters are installed since FEI does not have historical data of each individual home or property. FEI believes the energy demand for existing customers will likely remain at similar levels to historical consumption and might decline over time due to FEI providing conservation and energy management information and PRFN having access to FEI's conservation programs.

Attachment 15.1.1

ASSET PURCHASE AGREEMENT

THIS AGREEMENT made the __ day of September, 2018

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of Indian Affairs and Northern Development

("**Canada**")

AND:

PROPHET RIVER INDIAN BAND, as represented by its Chief and Councillors

(the "**Vendor**")

AND:

FORTISBC ENERGY INC.
16705 Fraser Highway
Surrey, British Columbia V4N 0E8

(the "**Purchaser**")

WHEREAS:

A. The Vendor owns and operates natural gas distribution piping and ancillary equipment for the distribution of natural gas to end user customers on the PRFN Reserve.

B. The Purchaser is a public utility providing natural gas distribution services in British Columbia.

C. The Vendor has agreed to sell to Purchaser, and the Purchaser has agreed to purchase from the Vendor, the installed natural gas piping and ancillary equipment for the consideration and on the terms and conditions as described herein.

D. The installed natural gas piping and ancillary equipment purchased under this Agreement will be used by Purchaser to carry out natural gas distribution services to end user customers on the PRFN Reserve, and pending BCUC approval, the Purchaser plans to install individual gas meters to the individual residents and businesses on the PRFN Reserve.

NOW THEREFORE in consideration of the respective covenants, agreements, representations and warranties of the parties hereto hereinafter contained and other good and valuable consideration (the receipt and sufficiency or which are hereby authorized by each of the parties), the parties hereto hereby agree as follows:

1. DEFINED TERMS

In addition to those terms used and defined in this Agreement, the following terms have the following meanings:

(a) "**Assets**" means the installed natural gas distribution equipment downstream of the Purchaser's existing bulk meter as detailed in orange on the sketch attached hereto as Schedule "A", which for greater certainty, includes:

(i) a below grade distribution grid consisting of approximately 3,200m of 60mm polyethylene pipe; and

(ii) approximately 59 individual service lines and risers connecting from the distribution grid providing natural gas service to residential and commercial properties on PRFN Reserve

all of which are used to serve the Vendor, residents, and businesses on the PRFN Reserve.

(b) "**BCUC**" means the British Columbia Utilities Commission or any successor entity.

(c) "**BCUC Acceptance**" means a final order approving (i) the Transaction; and (ii) the necessary capital expenditures required to carry out the Capital Upgrades, made by the BCUC on terms satisfactory to Purchaser, acting reasonably, that would not, in the opinion of Purchaser, do any of the following:

(i) prohibit or limit the ownership or operation by the Purchaser of any portion of the Assets;

(ii) compel the Purchaser to dispose of, hold or treat separate any portion of the Assets, customers or any business or assets;

(iii) prohibit the Purchaser from effectively controlling in any respect the Assets or any other business or operations of Purchaser; or

(iv) impose any condition or restriction that would be burdensome to, or cause any material adverse financial effect on the Purchaser or its operations or business.

(d) **"Capital Upgrades"** means the installation of individual gas meters to approximately 59 homes and businesses on the PRFN Reserve and additional leak survey or inspection work.

(e) **"Closing"** means the completion of the Transaction.

"**Closing Date**" means the tenth (10th) business following satisfaction of the conditions set out in sections 11(c), 11(e), 11(f), 11(g), 11(h), 11(i), and 12(c) or such earlier or later date as the parties may agree in writing.

(f) **"Closing Time"** means the time on the Closing Date when the full Purchase Price is paid to the Vendor.

(g) "**Encumbrance**" means whether or not registered or registrable or recorded or recordable, and regardless of how created or arising, any:

(i) mortgage, charge, pledge, lien, hypothec, assignment by way of security, lease, conditional sale or title retention agreement (including without limitation any capital lease), security created under the *Bank Act* (Canada) or any other encumbrance or security interest, howsoever created or arising, whether absolute or contingent, fixed or floating, legal or equitable, perfected or otherwise, and any other interest in property or assets that secures payment or performance of any obligation;

(ii) claim, interest or estate against or in assets or property (whether real, personal, mixed, tangible or intangible), including, without limitation, easements, rights-of-way, servitudes or other similar rights in property granted to or reserved or taken by any person;

(iii) option or other right to acquire, or to acquire any interest in, any assets or property (whether real, personal, mixed, tangible or intangible); or

(iv) any agreements to create, or right capable of becoming, any of the foregoing.

(h) "**Filing"** means the filing to the BCUC as specified in section 9.

(i) "**PRFN Reserve"** means the lands that have been set apart by Canada for the use and benefit of the Prophet River Indian Band, being approximately 924 acres in size.

(j) "**Purchase Price**" has the meaning specified in section 3.

(k) **"Transaction"** means the transaction of purchase and sale provided for and contemplated in this Agreement.

2. AGREEMENT

Subject to the terms and conditions of this Agreement, the Vendor will sell to Purchaser, and Purchaser will purchase from the Vendor, all of the Vendor's right, title and interest in and to the Assets, free and clear of all Encumbrances, at the Closing Time on the Closing Date.

3. PURCHASE PRICE

(a) The Purchase Price payable by Purchaser to the Vendor for the Assets is $10.00 plus applicable taxes.

(b) The Purchaser will pay the Purchaser Price at Closing by cheque or wire transfer to the Vendor or if directed by the Vendor, to the Vendor's solicitor, In Trust.

(c) The Purchaser will pay the applicable GST and PST to the Vendor, and the Vendor will remit the GST and PST to the appropriate governmental authority(ies) in accordance with applicable laws.

4. ACKNOWLEDGMENT OF PURCHASER RE "AS IS" CONDITION

The Purchaser acknowledges that except as specifically provided herein:

(a) in entering into this Agreement, the Purchaser has relied upon and will rely entirely and solely upon its own inspections and investigations with respect to the Assets;

(b) the Assets are being purchased by the Purchaser "As Is". The term "As Is" means in its condition or state on the date of the Closing and without any agreement, representation or warranty as to the suitability of the Assets for development, the existence of latent defects and the quality of the Assets provided; and

(c) the Vendor is not making any representation or warranty whatsoever, express or implied, with respect to the value, condition, merchantability or fitness for use of the Assets.

This section will survive the Transaction.

5. REPRESENTATIONS AND WARRANTIES OF THE VENDOR

The Vendor makes the following representations and warranties to the Purchaser as at the date hereof and as of the Closing Time and acknowledges that the Purchaser is relying on such representations and warranties in entering into this Agreement and completing the sale of the Assets:

(a) **Authorization and Enforceability.** This Agreement has been duly authorized, executed and delivered by the Vendor and is a legal, valid and binding obligation of the Vendor, enforceable against the Vendor by the Purchaser in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency and other laws affecting the rights of creditors generally and except that equitable remedies may be granted only in the discretion of a court of competent jurisdiction.

(b) **Absence of Conflict.** The execution and delivery of this Agreement by the Vendor, the consummation of the sale of the Assets and the fulfilment by the Vendor of the terms, conditions and provisions hereof will not:

(i) contravene or violate or result in a breach or a default under or give rise to a right of termination, amendment or cancellation or the acceleration of any obligations of the Vendor under:

(A) any applicable law;

(B) any judgment, order, writ, injunction or decree of any regulatory authority having jurisdiction over the Vendor;

(C) any consent held by the Vendor or necessary to the ownership of the Assets;

(D) the provisions of any contract to which the Vendor is a party by which is it, or any of its properties or assets are bound; or

(ii) result in the creation or imposition of any encumbrance on any of the Assets.

(c) **Approvals.** There is no requirement on the part of the Vendor to make any filing with, give any notice to or to obtain any license, permit, certificate registration, consent or approval of, any landowner or governmental or regulatory authority as a condition to the lawful consummation of the sale of the Assets contemplated by the Agreement.

(d) **No Other Agreements.** There is no agreement, contract, option, commitment or other right in favour of, or held by, any person other than the Purchaser to acquire or lease any of the Assets, to possess, attach or make contact with any of the Assets.

(e) **Title and Exclusivity.** The Assets are owned by the Vendor legally and beneficially, with a good and marketable title, free and clear of all liens, mortgages, charges, encumbrances, equities or claims of every nature and kind whatsoever, and the Vendor is exclusively entitled to dispose of the Assets.

(f) **Partnerships and Joint Ventures.** The Vendor is not a partner or participant in any partnership, joint venture or profit sharing arrangement with respect to the Assets.

(h) **Adverse Proceedings.** There are no material actions, suits or proceedings affecting any of the Assets, and to the knowledge of the Vendor, there are no such suits or proceedings pending or threatened in writing, or investigations by or before any government entity materially affecting any of the Assets. To the knowledge of the Vendor, there is no basis for any such actions, suits, proceedings or investigations arising from or related to the Assets.

(i) **Disclosure.** The Vendor has provided to the Purchaser all material documents, data and information relating to the condition or operation of the Assets known to the Vendor or in its possession or control that are reasonably expected to be material to the Purchaser, including without limitation technical reports and maintenance logs.

Except for the representations and warranties contained in this, the Vendor makes no express or implied representation or warranty as to the Assets.

6. REPRESENTATION AND WARRANTIES OF PURCHASER

Purchaser makes the following representations and warranties to the Vendor as at the date hereof and as of the Closing Time and acknowledges that the Vendor is relying on such representations and warranties in entering into this Agreement and completing the sale of the Assets:

(a) **Authorization and enforceability.** This Agreement has been duly authorized, executed and delivered by Purchaser and is a legal, valid and binding obligation of Purchaser, enforceable against the Purchaser by the Vendor in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency and other laws affecting the rights of creditors generally and except that equitable remedies may be granted only in the discretion of a court of competent jurisdiction.

(b) **Absence of conflict.** The execution and delivery of this Agreement by Purchaser, the consummation of the purchase of the Assets and the fulfilment by Purchaser of the terms, conditions and provisions hereof will not contravene or violate or result in a breach or a default under or give rise to a right of termination, amendment or cancellation of any obligations of Purchaser under:

(i) any applicable law;

(ii) any judgment, order, writ, injunction or decree of any regulatory authority having jurisdiction over Purchaser; or

(iii) the constating documents of Purchaser.

Except for the representations and warranties contained in this section, the Purchaser makes no express or implied representation or warranty as to the Assets.

7. SURVIVAL OF REPRESENTATIONS, WARRANTIES AND COVENANTS

All representations and warranties and covenants made by each of the parties in this Agreement or in any certificate delivered pursuant to this Agreement will survive the Transaction and will continue in full force and effect for the benefit of the party in whose favour they are expressed to be made.

8. VENDOR'S CONDUCT PRIOR TO CLOSING

Until the Closing Time, the Vendor will, in all material respects:

(a) operate, use and maintain the Assets in the ordinary course, consistent with past practice; and

(b) permit the Purchaser and its employees, agents, contractors or representatives, to have free and unrestricted access during normal business hours to the Assets provided such access occurs without interference to the ordinary conduct of the Vendor's business.

9. BCUC ACCEPTANCE

After the execution and delivery of this Agreement, the Purchaser will submit the Filing to the BCUC in pursuance of the BCUC Acceptance and will continue to use all reasonable commercial efforts to obtain the BCUC Acceptance. The Vendor will cooperate with and support the Purchaser's efforts to obtain the BCUC Acceptance, including making available to the BCUC such information as is reasonably necessary to support the Filing as requested by the Purchaser and the Vendor will not take any action inconsistent with obtaining the BCUC Acceptance.

10. VENDOR'S CONDUCT POST-CLOSING

Following Closing, the Vendor will:

(a) act as the initial account holder for each individual meter installed by the Purchaser on the PRFN Reserve until the individual resident or business applies to the Purchaser for natural gas service and opens up an account in the resident's or business' name;

(b) cooperate and assist the Purchaser in completing the Capital Upgrades including:

(i) acting as the primary point of contact between the Purchaser and residents, and the Purchaser and businesses, for the duration of the Capital Upgrades;

(ii) notifying residents and businesses of the Capital Upgrades, including the timing and nature of the work;

(iii) advising residents and businesses of the temporary interruption of gas service necessary to complete the Capital Upgrades;

(iv) facilitating the Purchaser's access to homes and businesses in order for the Purchaser to re-light equipment once an individual gas meter has been installed on a home or business;

(v) correcting any *Gas Safety Regulations* violations that exist past the individual meters that are installed by the Purchaser.

11. CONDITIONS PRECEDENT OF THE PURCHASER

The Purchaser's obligation to carry out the Transaction is subject to the following conditions to be fulfilled or performed, to the Purchaser's satisfaction, on or before the Closing Time, which conditions are for the exclusive benefit of the Purchaser and may be waived in whole or in part by the Purchaser in its sole discretion:

(a) **No Material Adverse Change.** There will not have been any material adverse change in the Assets, including but not limited to the physical condition of the Assets.

(b) **Truth of Representations and Warranties.** The representations and warranties of the Vendor made in this Agreement will be true and correct as of the date of this Agreement and as of the Closing Time.

(c) **BCUC Acceptance.** BCUC Acceptance will have been issued, and in the 30 days following the issuance of the BCUC Acceptance, no appeal, review, claim, proceeding, suit, reconsideration or investigation will have been initiated or threatened by or before any government entity (including the BCUC) or any court of competent jurisdiction in respect of the BCUC Acceptance.

(d) **Performance of Covenants.** The Vendor will have fulfilled or complied with all of its covenants contained in this Agreement in all material respects.

(e) **Section 28(2) Permit.** The Vendor, Purchaser, and Canada will have entered into a right of way agreement pursuant to section 28(2) of the *Indian Act*, R.S.C.1985, c. 1-5 enabling the Purchaser to own, operate, and maintain the Assets on the PRFN Reserve on terms satisfactory to the Purchaser.

(f) **Consents, Authorizations and Registrations.** All consents, approvals, orders and authorizations of any person (and registrations, declarations, filings or recordings with any governmental authority), required in connection with the completion of any of the transactions contemplated by this Agreement will have been obtained at or before the Closing Time on terms acceptable to the Purchaser, acting reasonably.

(g) **Deliveries.** The Vendor will have delivered or caused to be delivered to the Purchaser the documents specified in section 15(b).

(h) **No Adverse Proceedings.** No directives, orders, judgments or decrees of a government entity will have been withdrawn, varied or granted to any person (other than the Purchaser or its affiliates, as defined in the *Business Corporations Act*) to enjoin, restrict or prohibit the Purchaser's purchase of the Assets pursuant to the terms of this Agreement or the right of the Purchaser to operate and use the Assets after Closing on substantially the same basis as heretofore operated and used.

(i) **Due Diligence.** The Purchaser will have conducted whatever searches the Purchaser, in its sole discretion, deems advisable with respect to the Assets, including without limitation, title to the Assets, physical and engineering inspections of the Assets, compliance with all applicable law and regulations, any agreements with third parties affecting the Assets, environmental audits, operating costs analysis, and other matters of interest to the Purchaser with respect to the Assets and is satisfied, in its sole discretion, with the results of all such searches.

If the foregoing conditions have not been satisfied on or before the Closing Time, the Purchaser may waive compliance with the condition in whole or in part, in its sole discretion, by written notice to the Vendor, failing which delivery of written notice of satisfaction or waiver of such condition, this Agreement will be null and void, without liability between the parties, and neither party will be under any further obligation to the other to complete the transactions contemplated by this Agreement.

12. CONDITIONS PRECEDENT OF THE VENDOR

The Vendor's obligation to carry out the Transaction is subject to the following conditions to be fulfilled or performed, to the Vendor's satisfaction, on or before the Closing Time, which conditions are for the exclusive benefit of the Vendor and may be waived in whole or in part by the Vendor in its sole discretion:

(a) **Truth of Representations and Warranties.** The representations and warranties of the Purchaser made in this Agreement will be true and correct as of the date of this Agreement and as of the Closing Time.

(b) **Performance of Covenants.** The Purchaser will have fulfilled or compiled with all of its covenants contained in this Agreement in all material respects.

(c) **Deliveries.** The Purchaser will have delivered or caused to be delivered to the Purchaser the items specified in section 15(c).

(d) **No Adverse Proceedings.** No directives, orders, judgments or decrees of a government entity will have been withdrawn, varied or granted to any person (other than the Vendor or its affiliates, as defined in the *Business Corporations Act*) to enjoin, restrict or prohibit the Vendor's sale of the Assets pursuant to the terms of this Agreement.

If the foregoing conditions have not been satisfied on or before the Closing Time, the Vendor may waive compliance with the condition in whole or in part, in its sole discretion, by written notice to the Purchaser, failing which delivery of written notice of satisfaction or waiver of such condition, this Agreement will be null and void, without liability between the parties, and neither party will be under any further obligation to the other to complete the transactions contemplated by this Agreement.

13. ACTIONS TO SATISFY CLOSING CONDITIONS.

(a) The Purchaser will take all such actions, steps and proceedings as are reasonably within its control as may be necessary to ensure that all of the conditions set forth in section 11 are fulfilled at or before the time specified in such section.

(b) The Vendor will take all such actions, steps and proceedings as are reasonably within its control as may be necessary to ensure that all of the conditions set forth in section 12 are fulfilled at or before the time specified in such section.

14. TERMINATION ON OR AFTER JUNE 30, 2019

If the Transaction has not completed by June 30, 2019, the Purchaser may elect to terminate this Agreement by notice in writing to the Vendor, and in such event the Vendor and the Purchaser will be released from their respective obligations hereunder.

15. CLOSING

(a) Title to the Assets will transfer to the Purchaser on the Closing Time on the Closing Date.

(b) On or before Closing, the Vendor will deliver or cause to be delivered to the Purchaser the following:

(i) such deeds, bills of sale, conveyances, transfers, assignments, instruments and other documents which are necessary to assign, sell and transfer the Assets to the Purchaser, each effective as of the Closing Time on the Closing Date as contemplated by this Agreement in such form and content as the Purchaser may reasonably require to give effect to the Transaction, duly executed by the Vendor, as applicable.

(c) On or before Closing, the Purchaser will deliver or cause to be delivered to the Vendor the following:

(i) the Purchase Price, as provided in section 3; and

(ii) such deeds, bills of sale, conveyances, transfers, assignments, instruments and other documents which are necessary to assign, sell and transfer the Assets to the Purchaser, each effective as of the Closing Time on the Closing Date as contemplated by this Agreement in such form and content as the Vendor may reasonably require to give effect to the Transaction, duly executed by the Purchaser, as applicable.

16. INDEMNIFICATION

(a) The Vendor will indemnify and hold Purchaser, its directors, officers, agents and employees harmless from and against any actions, claims, damages, costs and expenses including without limitation all applicable solicitors' fees and disbursements, investigation expenses, adjusters' fees and disbursements whatsoever which may be brought against or suffered by Purchaser, or its directors, officers, agents and employees or which they may incur, sustain or pay arising directly or indirectly out of a breach by the Vendor of its obligations, representations or warranties under this Agreement.

(b) The Purchaser will indemnify and hold the Vendor harmless from and against any actions, claims, damages, costs and expenses including without limitation all applicable solicitors' fees and disbursements, investigation expenses, adjusters' fees and disbursements whatsoever which may be brought against or suffered by Vendor, or its directors, officers, agents and employees or which they may incur, sustain or pay arising directly or indirectly out of a breach by the Purchaser of its obligations, representations or warranties under this Agreement.

(c) The foregoing indemnities will survive the Transaction.

17. CANADA'S CONSENT

Canada represents and warrants that the Assets are not deemed situated on reserve within the meaning of section 90(1) of the *Indian Act*, R.S.C. 1985, c. 1-5 and that as such, Canada's consent to the Transaction is not required.

[or]

Whereas the Assets are personal property deemed situated on a reserve, Canada hereby consents to the Transaction pursuant to section 90 of the *Indian Act*, R.S.C. 1985, c. 1-5.

[NTD: confirm with Canada which paragraph applies]

18. ANNOUNCEMENTS

Any press release or public statement or announcement with respect to the execution of this Agreement or the completion of the Transaction will be made only with the prior written consent and joint approval of the Vendor and the Purchaser unless such public statement or announcement is required by law, to obtain BCUC Acceptance or is required by any stock exchange, in which case the party required to make the public statement or announcement will use reasonable efforts to consult with the other party as to the form, nature and extent of the disclosure, to the extent permitted by law. For certainty, (i) testimony given by any witness before the BCUC and responses to questioning at any workshop or other meeting held in connection therewith will not be considered to be a public statement or announcement for the purposes of this section, and each party will only be required to consult with the other party in advance of filing any such information or giving any such testimony if such filing or testimony directly and adversely affects the interests of the other party and (ii) information contained in public statement or announcement that have already been made public by either of the parties is not subject to the preceding sentence.

19. ASSIGNMENT

Neither party will assign its rights under this Agreement without the prior written consent of the other party, which consent will not be unreasonably withheld.

20. LAW

This Agreement will be governed by and construed in accordance with the laws of the Province of British Columbia and the parties will attorn to the exclusive jurisdiction of the courts of British Columbia.

21. EXPENSES

Except as otherwise expressly provided in this Agreement, all costs and expenses incurred in connection with the Transaction will be paid by the party incurring such expenses.

22. TIME

Time is of the essence in this Agreement.

23. ENUREMENT

This Agreement will be for the benefit of and be binding upon Purchaser and the Vendor and their respective successors and permitted assigns.

24. ENTIRE AGREEMENT

This Agreement embodies the entire agreement between the parties and supersedes all prior communications, negotiations and agreements, written or oral, relating to the Assets. This Agreement contains all the representations, warranties, covenants, agreements, conditions and understandings between the parties with respect to the Assets and there are no other representations, warranties, covenants, agreements, conditions or understandings with respect to the Assets that are not contained herein.

25. FURTHER ASSURANCES

From time to time after the Closing Date, each party will, at the request and cost of any other party, execute and deliver such additional conveyances, transfers and other assurances as may be reasonably required to effectively transfer the Assets to the Purchaser and to otherwise carry out the intent of this Agreement or any documents, instruments and agreements required to be delivered by it pursuant to this Agreement.

26. WAIVER

No waiver of any of the provisions of this Agreement will be deemed to constitute a wavier of any other provision, nor will such waiver be binding unless executed in writing by the party to be bound by the waiver.

27. AMENDMENTS

The parties are not bound by any amendment, variation or waiver of any provision of this Agreement unless it is in writing and signed by their representatives.

28. SEVERABILITY

If any provision of this Agreement will be determined by any court of competent jurisdiction to be illegal, invalid or unenforceable, that provision will be severed from this Agreement and the remaining provisions will continue in full force and effect.

29. COUNTERPARTS

This Agreement may be executed in counterparts, each of which will be deemed an original, but all of which will be construed together and constitute one and the same instrument. Delivery of an executed pdf counterpart of this Agreement by electronic transmission will be as effective as delivery of an originally executed counterpart hereof.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date and year first written above.

EXECUTED BY FORTISBC ENERGY INC. in the presence of:	))))	**FORTISBC ENERGY INC.**, by its authorized signatory

______________________________	)	______________________________
(Witness' signature)	)	(signature)
______________________________	)	______________________________
(print name of Witness)	)	(print name)
	)	______________________________
	)	(print title)
	)	I have the authority to bind the corporation.
EXECUTED BY THE PROPHET RIVER INDIAN BAND in the presence of:	)	**PROPHET RIVER INDIAN BAND** represented by its Council
______________________________	)	______________________________
(Witness' signature)	)	Chief
______________________________	)	______________________________
(print name of Witness)	)	Councillor
	)	______________________________
	)	Councillor
	)	______________________________
	)	Councillor
	)	______________________________
	)	Councillor
	)	______________________________
	)	Councillor
	)	We have the authority to bind the Prophet River Indian Band
EXECUTED BY CANADA in the presence of:	)	**HER MAJESTY THE QUEEN IN RIGHT OF CANADA**, as represented by the Minister of Indian Affairs and Northern Development

______________________________	)	______________________________
(Witness' signature)	)	(signature)
	)	
______________________________	)	______________________________
(print name of Witness)	)	(print name)
	)	
	)	For the Minister of Indian Affairs and Northern Development
	)	
	)	

SCHEDULE "A"

SKETCH OF ASSETS