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VIA E-FILING

Reply to: Leigha Worth
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Our File: 7648

Patrick Wruck
Commission Secretary
BC Utilities Commission
6th Floor 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

Re: FortisBC Energy Inc. 2016 Rate Design Application ~ Project No.3698899

Please be advised that we make the following final submissions in regards to FortisBC Energy Inc.'s (FEI) 2016 Rate Design Application on behalf of the ratepayer group known in this regulatory process as BCOAPO or BCOAPO et al. The member groups of BCOAPO et al. represent the interests of low and fixed income residential energy consumers before the BC Utilities Commission (Commission or BCUC) and, more specifically in this process, the interests of Fortis's low and fixed income residential natural gas ratepayers. As such, all of BCOAPO's member organizations have a direct and material interest in the outcome of this 2016 RDA.

These community advocacy organizations regularly intervene in proceedings before the Commission in an effort to ensure that utilities like FEI provide safe, reliable, and affordable service. Unfortunately, as the cost of living has far outstripped the rate at which our incomes have grown, British Columbia's low and fixed income residential ratepayers are increasingly being exposed to the pressures of energy poverty, limiting their ability to access essential services like FEI's natural gas for heating and cooking. As a result, rate design processes such as this are of even greater importance to BCOAPO than they have been in the past.

Introduction

On December 19, 2016 FEI filed its Rate Design Application seeking approval of a number of elements, including a Cost of Service Allocation (COSA) and Revenue to Cost Ratios (RCR), a Transportation Service Review and the balance of the utility's rate design proposals.

The ensuing process has been extensive. There have been two workshops; multiple rounds of IR's on not only FEI's initial proposal but also on Elenchus' COSA and Rate Design Reports; two streamlined processes; written submissions on the Utility's COSA and RCR; a supplemental filing; and evidentiary updates.

In this process, BCOAPO made it clear as early as the workshops that it intended to present evidence in this process similar to that submitted in the BC Hydro Rate Design regarding the importance of low income rates, terms and conditions as well as the utility's ability to design and implement them. To that end, counsel retained the services of Roger Colton, the expert responsible for BCOAPO's low income-related proposal and the lion's share of the resulting evidence on the record for the BC Hydro RDA to assist. However, when the BC Court of Appeal declined to give leave to appeal the Commission's decision from the BC Hydro RDA regarding its jurisdiction (or lack thereof) to set a differentiated rate for qualifying low income residential ratepayers counsel made the difficult yet necessary decision to disengage from this course of action: recognizing that the regulatory process would be fruitlessly bogged down should BCOAPO and Mr. Colton spend the time and money to produce evidence the Commission Panel would not or would not likely consider. BCOAPO wishes to be clear that this decision does not reflect any lack of commitment to continuing to seek low income rates, terms and conditions from all of British Columbia's regulated utilities, particularly in light of the provincial government's intention to legislate a lifeline rate program.

Legislative Scheme

FEI is a privately-owned monopoly provider of natural gas service to a large portion of the province including the Lower Mainland, Vancouver Island and the Whistler area. As is the case when there is a monopoly, the Commission's regulatory oversight acts as a proxy for the competitive marketplace, ensuring that utilities provide safe, reliable, efficient, just and affordable service in all respects. This requires the Commission to oversee to some degree all aspects of utilities' service: infrastructure, operations, service and rates.

The following provisions of the *Utilities Commission Act* (*UCA*) are relevant to this proceeding:

> **General supervision of public utilities**
> **23** (1) The commission has general supervision of all public utilities and may make orders about
> (a) equipment,
> (b) appliances,
> (c) safety devices,
> (d) extension of works or systems,
> (e) filing of rate schedules,
> (f) reporting, and
> (g) other matters it considers necessary or advisable for
> (i) the safety, convenience or service of the public, or
> (ii) the proper carrying out of this Act or of a contract, charter or franchise involving use of public property or rights.
> (2) Subject to this Act, the commission may make regulations requiring a public utility to conduct its operations in a way that does not unnecessarily interfere with, or cause unnecessary damage or inconvenience to, the public.
>
> **Public utility must provide service**
>
> **38** A public utility must
> (a) provide, and
> (b) maintain its property and equipment in a condition to enable it to provide, a service to the public that the commission considers is in all respects adequate, safe, efficient, just and reasonable.
>
> **Discrimination in rates**
>
> **59** (1) A public utility must not make, demand or receive
> (a) an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia, or

(b) a rate that otherwise contravenes this Act, the regulations, orders of the commission or any other law.

(2) A public utility must not

(a) as to rate or service, subject any person or locality, or a particular description of traffic, to an undue prejudice or disadvantage, or

(b) extend to any person a form of agreement, a rule or a facility or privilege, unless the agreement, rule, facility or privilege is regularly and uniformly extended to all persons under substantially similar circumstances and conditions for service of the same description.

(3) The commission may, by regulation, declare the circumstances and conditions that are substantially similar for the purpose of subsection (2) (b).

(4) It is a question of fact, of which the commission is the sole judge,

(a) whether a rate is unjust or unreasonable,

(b) whether, in any case, there is undue discrimination, preference, prejudice or disadvantage in respect of a rate or service, or

(c) whether a service is offered or provided under substantially similar circumstances and conditions.

(5) In this section, a rate is "unjust" or "unreasonable" if the rate is

(a) more than a fair and reasonable charge for service of the nature and quality provided by the utility,

(b) insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property, or

(c) unjust and unreasonable for any other reason.

Setting of rates

60 (1) In setting a rate under this Act

(a) the commission must consider all matters that it considers proper and relevant affecting the rate,

(b) the commission must have due regard to the setting of a rate that

(i) is not unjust or unreasonable within the meaning of section 59,

(ii) provides to the public utility for which the rate is set a fair and reasonable return on any expenditure made by it to reduce energy demands, and

(iii) encourages public utilities to increase efficiency, reduce costs and enhance performance,

(b.1) the commission may use any mechanism, formula or other method of setting the rate that it considers advisable, and may order that the rate derived from such a mechanism, formula or other method is to remain in effect for a specified period, and

(c) if the public utility provides more than one class of service, the commission must

(i) segregate the various kinds of service into distinct classes of service,
(ii) in setting a rate to be charged for the particular service provided, consider each distinct class of service as a self contained unit, and
(iii) set a rate for each unit that it considers to be just and reasonable for that unit, without regard to the rates set for any other unit.

(2) In setting a rate under this Act, the commission may take into account a distinct or special area served by a public utility with a view to ensuring, so far as the commission considers it advisable, that the rate applicable in each area is adequate to yield a fair and reasonable return on the appraised value of the plant or system of the public utility used, or prudently and reasonably acquired, for the purpose of providing the service in that special area.
(3) If the commission takes a special area into account under subsection (2), it must have regard to the special considerations applicable to an area that is sparsely settled or has other distinctive characteristics.
(4) For this section, the commission must exclude from the appraised value of the property of the public utility any franchise, licence, permit or concession obtained or held by the utility from a municipal or other public authority beyond the money, if any, paid to the municipality or public authority as consideration for that franchise, licence, permit or concession, together with necessary and reasonable expenses in procuring the franchise, licence, permit or concession.

FEI's Proposals

FEI is proposing a rate design based on an R:C range of reasonableness of 95% to 105%: reflective of the directives in Commission Order G-4-18. Specifically, the Utility is proposing:

For Residential Customers
- An increase to the Basic Charge per Day by $0.0195 from $0.3890/Day to $0.4085/Day to increase the proportion of fixed costs recovered by the Basic Charge.
- A decrease to the Delivery Charge per GJ by $0.086/GJ to maintain revenue neutrality with the Basic Charge increase.
- An increase the Delivery Charge per GJ by $0.027/GJ as a result of the revenue shifts and rebalancing.

For Commercial Rate Schedules:

Adjustments to the basic charges and delivery charges of the commercial rate schedules to align with the 2,000 GJ threshold between small and large commercial customers as follows:

- For Rate Schedules 2, 2B, 2U, and 2X:
  - Increase the Basic Charge per Day by $0.1324 from $0.8161/Day to $0.9485/Day.
  - Decrease the Delivery Charge per GJ by $0.186/GJ.
- For Rate Schedules 3, 3B, 3U, 3X, and 23:
  - Increase the Basic Charge per Day by $0.4357 from $4.3538/Day to $4.7895/Day.
  - Increase the Delivery Charge per GJ by $0.001/GJ.
- For RS 23:
  - Decrease the Administration Charge per Month from $78.00 to $39.00.

For Industrial Rate Schedules:

A revision to the multiplier in the Daily Demand formula in RS 5 and RS 25 from 1.25 to 1.10 and the increase in the Demand Charge in RS 5 and RS 25 by $3.00/GJ/Month.

A decrease to the Basic Charge in RS 5 and RS 25 by $118.00 per month from $587.00 per month to $469.00 per month.

A decrease in the Delivery Charge of RS 7 and RS 27 by $0.012/GJ.

An increase to RS 4 rates due to the proposed changes to RS 5 and RS 7 as shown in Table 9-21 and discussed in Section 9.7, by increasing the Off-Peak Delivery Rate by $0.114/GJ and by decreasing the Extension Period by $0.018/GJ.

Setting the charges for RS 22 on a cost of service basis for all large industrial customers as follows:

- Firm Demand Charge of $25.000/GJ/Month.
- Firm MTQ Delivery Charge of $0.015/GJ.
- Interruptible MTQ Delivery Charge of $0.972/GJ.

Termination of Tariff Supplement G-21, FEI's contract with Creative Energy Vancouver Platforms Inc., effective in the fourth quarter of 2018.

The following adjustments to the transportation model:

- Amendments to Rate Schedules 22, 22A, 22B, 23, 25, 26, and 27 to implement daily balancing for all transportation customers.
- Amendments to Rate Schedules 22, 22A, 22B, 23, 25, 26, and 27 to reduce the daily balancing tolerance to a 10% threshold and to introduce a

balancing charge of $0.25/GJ for transportation customers for gas supply shortfalls within a 10% to 20% tolerance level.

A decrease to the Delivery Charge per GJ of RS 6 by $1.622/GJ to address rebalancing.

Setting the Delivery Charge per GJ for RS 6P to equal the Delivery Charge per GJ of RS 6.

BCOAPO's Submissions

BCOAPO does not intend to offer comment on every aspect of this application. There are a large number of FEI proposals, including a number dealing only with Fort Nelson, that we will not address in our submissions in the interest of regulatory efficiency. Instead, BCOAPO will focus on only those aspects of this Application that engage its constituents' interests.

Flat or Block Rate Structure

In this Application, FEI is proposing to continue its current flat rate structures for RS 1, including RS 1U, RS 1X and RS 1B. The Utility undertook a customer research study that showed the flat rate structure is the preference of a majority of its residential customers. This is the rate structure used by the majority of Canadian natural gas utilities for residential ratepayers although BCOAPO notes that there are two exceptions to this trend, the two largest natural gas providers in this country: Union Gas Ltd. And Enbridge Gas Distribution.

Arguably, an inclining block rate structure where the delivery costs rise with increasing volume purchases would seem be more in line with current government policy. However, BCOAPO accepts that such rate structures are rare in Canada for residential natural gas customers and that such a shift would face significant customer resistance despite the benefits such a rate structure could potentially have on all but the highest natural gas consumers. As a result, our clients support the FEI proposal to continue use of the flat rate structure for the residential class.

Rate Rebalancing

In this Application, FEI's proposal is to shift a total revenue deficit of $786,400 resulting from the Rate Design proposals from other rate classes onto Rate class 1. FEI's main justification for this is that RS 1 is the only rate schedule with an R:C ratio of less than 100%.[1]

Table 12-1: Revenue Changes from Rate Design Proposals

Rate Schedule	Revenue Change ($000s)
2	-$1,174.1
3 / 23	+$1,174.1
4	+$13.3
5 / 25	+$45.2
7 / 27	-$90.7
22	-$754.2
Total	**-$786.4**

In addition to the changes shown in Table 1-1 FEI proposes to shift an additional $75.9 thousand from the RS6/6P (CNG) rates to rate class 1. The combined impacts are shown below.[2]

[1] Exhibit B-1-5, FEI Application (Updated) Section 12.1.4, pg. 12-4
[2] Ibid. pg. 12-7

Table 1-1: R:C and M:C Results before and after Rate Design Proposals and Rebalancing

Rate Schedule	Initial COSA		Revenue Shifts and Rebalance Amount ($000)	Approximate Annual Bill Change	COSA after Rate Design Proposals and Rebalancing	
	R:C	M:C			R:C	M:C
Rate Schedule 1 *Residential Service*	95.6%	93.1%	2,000.8	0.3%	96.6%	94.6%
Rate Schedule 2 *Small Commercial Service*	101.3%	102.5%	(1,174.1)	-0.5%	102.2%	104.1%
Rate Schedule 3/23 *Large Commercial Sales and Transportation Service*	101.6%	103.3%	1,174.1	0.6%	103.6%	107.6%
Rate Schedule 5/25 *General Firm Sales and Transportation Service*	104.9%	112.2%	(1,093.3)	-1.2%	105.0%	112.6%
Rate Schedule 6/6P *Natural Gas Vehicle Service*	131.2%	159.1%	(75.9)	-20.3%	105.0%	109.5%
Rate Schedule 22A *Transportation Service (Closed) Inland Service Area*	109.5%	109.8%			113.0%	113.4%
Rate Schedule 22B *Transportation Service (Closed) Columbia Service Area*	99.7%	99.7%			103.1%	103.1%
Rate Schedule 22 *Large Volume Transportation Service*	1425.5%	1864.4%	(754.2)	-3.4%	100.0%	100.0%

Rate Schedule *(rates not set using allocated costs)*	Initial COSA		Revenue Shifts and Rebalance Amount ($000)	Approximate Annual Bill Change	COSA after Rate Design Proposals and Rebalancing	
	R:C	M:C			R:C	M:C
Rate Schedule 4 *Seasonal Firm Gas Service*	147.4%	550.9%	13.3	1.9%	150.2%	578.3%
Rate Schedule 7/27 *General Interruptible Sales and Transportation Service*	139.6%	712.3%	(90.7)	-0.3%	139.3%	713.6%

FEI's proposal will shift the sole responsibility for the rate rebalancing onto the RS 1 class which would result in an annual bill impact of 0.3% and a shift of $2,000,800 to residential customers. However, if instead the Utility were to shift revenues of all the classes to be within the range of reasonableness as set out in the January 9, 2018 Commission Order G-4-18, then this impact would be reduced to 0.1%.[3]

[3]FEI – Final Submission March 27, 2018, pg.52

As noted in the response to BCOAPO interrogatories, the annual rate impact of the combined proposal and cost of service adjustments would be greater than 5% on the total bill (i.e. $782 to $822). Since the response to this interrogatory FEI has updated the proposed rates increasing for example, the residential delivery charge from $4.746/GJ to $4.762/GJ.

The resultingly not insignificant increase to the residential class[4] is shown below:

Assumptions

2017 Approved Rates for Existing Rates column
RDA Proposed Rates for Proposed Rates column
Currently Approved Commodity Cost Recovery Charges and Storage & Transport Charge at October 24, 2017
Proposed Rates includes Known and Measurable changes increase to Delivery Margin of approximately 7.4% as included in the Application
Proposed Rates includes rebalancing increase of approximately 0.1% as proposed in the Application
Excludes all taxes
Excludes all riders

Rate Schedule 1 Charges	Existing Rates	Proposed Rates
Basic Charge/Day	0.3890	0.4085
Delivery Charge/GJ	4.370	4.746
Storage & Transport Charge/GJ	1.009	1.009
Commodity Charge/GJ	2.050	2.050

Month	Days per Month	Average Normalized Consumption (GJ)	Monthly Bill at Existing Rates	Monthly Bill at Proposed Rates
October 2016	31	6.2	$ 57.75	$ 60.66
November 2016	30	12.9	$ 107.42	$ 112.86
December 2016	31	12.6	$ 105.78	$ 111.12
January 2017	31	13.2	$ 109.92	$ 115.48
February 2017	28	10.0	$ 85.53	$ 89.85
March 2017	31	10.4	$ 89.42	$ 93.93
April 2017	30	7.4	$ 66.39	$ 69.75
May 2017	31	4.4	$ 44.88	$ 47.15
June 2017	30	2.8	$ 32.13	$ 33.75
July 2017	31	2.3	$ 29.08	$ 30.55
August 2017	31	2.3	$ 29.47	$ 30.96
September 2017	30	1.7	$ 24.53	$ 25.77
Total	**365**	**86.2**	**$ 782.29**	**$ 821.82**

[4]Exhibit B-22 FEI-BCOAPO IR 30.

It is BCOAPO's position that in its RDA Decision, the Commission should consider the combined impacts of the rate design changes, rate rebalancing and the ongoing cost increase impacting the residential rate class.

In our submission, the Commission should require only that all classes be brought within the range of reasonableness and then only in a manner which minimizes negative rate impacts to the residential class (RS1) which is required to absorb the revenue adjustment. The entire premise of using a "range of reasonableness" relies on an acceptance of the fact that a reasonable cost allocation does not require a single point result (i.e. 100%) but is instead an indicative range.

Residential Fixed/Variable Rate Proposal

FEI is also proposing a 5% increase in the Basic Charge and a corresponding decrease in the Delivery Charge (by $0.0195 per day from $0.3890 to $0.4085). Offsetting this increase (as the change is calculated on a revenue neutral basis) would be a decrease in the Delivery Charge per GJ by $0.086. FEI states that the change will result in only a small annual bill impact for the majority of customers (+/- less than 1%), and no bill impact for an average use customer.

While the rate structure change is intra class neutral it is FEI's position that the current residential rate structure results in intra class rate subsidies from large volume residential consumers to low volume consumers. FEI also argued that being low-income consumer is not necessarily coincident with being a low volume consumer. FEI stated that In the current residential rate structure, the current basic charge of $11.84 (when calculated as the average fixed monthly amount) recovers about 44% of the customer costs and only about 27% of the total of customer and demand costs allocated to the residential rate schedule[5].

[5] Exhibit B-1-5, Application, pp. 7-17

The increase in the Basic (fixed) Charge would on the face of it run counter to provincial energy policy to promote energy efficiency, conservation and to reduce greenhouse gas (GHG) emissions.

BCOAPO opposes the increase in the fixed charge for residential customers for three reasons.

First, an increase in the fixed component of the rate with an associated decrease in the variable component runs counter to government energy efficiency policies[6]. The effect of increasing the fixed charge while decreasing the variable charge is to weaken the relationship between price and consumption. This, in turn, makes provincial and federal energy policies aimed at carbon fuel reduction more difficult to achieve.

Second, FEI relies primarily on the argument that the proposed change will improve intra-rate class fairness. However, it is not clear that is necessarily the case. In speaking to its own analysis of RS1 load factors which found statistically low correlation and high variation in the relationship between volume consumption and load factor, FEI concluded:

> The results of the regression analysis are logical since, for instance, a low consumption customer, such as a single occupant in a studio apartment with natural gas domestic water heating, could have a higher than average load factor; conversely, a high consumption customer with natural gas space heating and a poorly insulated house can have low load factor. For these reasons, it is not possible to estimate a customer's load factor based on their annual or monthly consumption.[7]

Yet at the same time it conflates load factor and load by using as a definition of intra-rate-schedule fairness "... *whether some of the lower load factor or lower volume*

[6] See FEI Final Submission, March 27, 2018, pg.5
[7] B-1-5 FEI Application (updated) page 7-9

customers are paying their fair share as compared to higher load factor customers or higher volume customers within RS 1."[8]

In our submission it is inconclusive whether low volume customers have a higher or lower load factor than higher volume customers. Ergo it is also inconclusive whether low volume residential customers subsidize high volume residential customers.

Finally, the third reason arguing against any change in the fixed/variable portion of the rate is the underlying asymmetric nature of the proposal. By moving more of the residential stream from a variable to a fixed charge FEI is reducing its volume or load forecast risk. However, this change is being made without any proposal to adjust the return on equity embedded in the current cost of service. In our submission any change to fixed from variable rates should be made in conjunction with adjustments to the allowed returns embedded in rates.

RS 2/RS 3 Small Commercial Rates

FEI is proposing the continuation of a flat rate structure and a 2,000 GJ per year customer segmentation threshold for its commercial customers in RS 2 and RS 3/RS 23. However, to minimize the rate inequity for customers close to the current 2,000 GJ threshold FEI is raising the Basic Charge for both RS 2 and RS 3/RS 23 and lowering the Delivery Charge for RS 2 and raising the Delivery Charge for RS 3/RS 23. Bill impacts to RS 3/23 will be zero to one percent and bill impacts to RS 2 will result in an increase of between 2% to 10%.

While we have no objections to the rate design restructuring proposed we note, that as in the case of the residential class, FEI is proposing to increase the amount of revenue collected through fixed rates. Again, this associated reduction in volume risk is not accompanied by a reduction in the returns embedded in rates.

[8] Ibid, page 7-9

RS 5 and RS 25

RS 5 and RS 25 are General Firm Service rates for sales and transportation customers. FEI is proposing two adjustments to these rates from the original application:

> (1) an update to the multiplier in the Demand Charge from 1.25 to 1.10 to more accurately estimate the peak Daily Demand; and
> (2) an increase in the Demand Charge by $3.00 to continue the incentive for low load factor customers to take service under Large Commercial RS 3/RS 23 rather than General Firm Service RS 5/RS 25.

The result is a $118 decrease in the basic charge to $469 per month.[9]

Rate 22

FEI proposes to rationalize the various individual contractual arrangements under the ambit of RS 22 into a single postage stamp rate. The effect of the proposal would result in a decrease in revenues from the existing contract customer VIGVJ. The proposal for Rate 22 has a major impact on the residential class by decreasing the revenues required to from RS 22 by and increasing the revenues required to be collected by RS1 by an amount of $754 thousand.
FEI's proposal results in an R:C ration of 100%.

As noted above, in our submission the Commission should adopt a policy which would move any rate class currently outside of the approved range of reasonableness to the entry point of that range. In this case the new RS 22 rate would be moved to recover at the 95% level rather than the proposed 100% R:C[10]. Again, we note there is no compelling evidence that 95% is less or more reasonable than the 100% level proposed. If adopted the directional impact would be to reduce the already high burden being foisted upon residential customers as a result of FEI's Rate Design proposals.

[9] Exhibit B-1-4 pg. 12-6
[10] Exhibit FEI Application (Updated) page 12-3

Rate R6/RS 6P

Based on FEI's Final COSA model results above, RS 6/RS 6P has an R:C ratio of 131.7%. There are 15 customers who take service under RS 6. These customers operate public CNG refueling stations. RS 6P is for public natural gas vehicle refueling at FEI's Surrey Operation Centre. To set the R:C ratio for RS 6/RS 6P within the upper limits of the range of reasonableness, FEI is proposing a reduction of $75.9 thousand in the revenue required from RS 6/RS 6P by decreasing the Delivery Charge by $1.622/GJ.

FEI's position is premised on achieving a 100% load factor for RS 6 customers. The 100% load factor is in turn premised on the idea that consumption for natural gas vehicles is neither heat sensitive nor seasonal[11].

Load factor is defined as the average capacity utilization by a customer relative to the total or maximum available. So, for example a customer with a 50% load factor uses their capacity only half of the time. In our view there is no evidence to substantiate the 100% load factor being employed by FEI for these rate classes. Since natural gas vehicles (NGV) likely to be using facilities periodically and sporadically arguing for a much lower load factor. In fact there is no evidence which would support the load factor used. Arguably what is occurring is a subsidy to this service from residential customers to a small number of NGV customers. In our submission the Commission should adopt a load factor of 55% which would result in a $40 movement of revenues from RS1 customers back to R6 customers.[12]

RS 7 and R 27 Interruptible

[11] Exhibit B-8 FEI-BCOAPO IR 6.5
[12] *Ibid*

RS 7 and RS 27 are for interruptible service and are set at a discount from firm (R5) service. FEI argues that the existing discount achieves a balance between maximizing the economic value of interruptible service, which helps to offset utility costs to firm customers, and providing a sufficient incentive for existing customers to stay on interruptible service and to attract new customers.

RS7/27 is set at a discount to the firm rate RS5. There is nothing inherently wrong with that methodology but it does allow a significant amount of leeway to set the rates. One of the ways in which to "sanity check" the discount is to look at the service. Interruptible customers are, in essence, receiving firm service at a discount rate. The lack of migration and continual growth of the class also argues for a decrease in the discount to this service.

The Utility argued that if all interruptible customers and volumes moved to firm service, the incremental capital cost of the transmission and distribution system upgrades needed would be approximately $134 million, resulting in an additional revenue requirement of $10.4 million. Approximately only 22% of this incremental cost of service would be offset by additional revenues from the previously-interruptible customers now paying higher firm service rates.[13]

FEI's adjustment proposal is to preserve the discount between RS 7 (27) and the proposed changed RS5 (25) rates. To implement the update to RS 7 and RS 27, FEI is requesting approval to decrease the Delivery Charge of RS 7 and RS 27 by $0.012/GJ. As shown in the Table below the proposal has the effect of increasing the discount between RS5 and Interruptible rates.[14]

Table 9-20: Resulting Discount from Adjustment to RS 7/RS 27

[13] Exhibit B-8, BCOAPO-FEI IR 1.9.2.
[14] Exhibit B-1-5 FEI Application (Updated) page 9-32.

Rate Schedule	Line No.		2016 COSA with 80% Load Factor Adjustmen	2018 RS 7/27 Charges using 2001	2018 Proposed with 90.9% Load Factor
RS 5/25	1	*Demand Charge*	$21.596	$24.596	$24.596
Load Factor for Equivalent firm Demand Charge	2		80.0%	80.0%	90.9%
Load Factors for Interruptible Rate	3		N A	55.0%/80.0%	62.5%/90.9%
Effective Rate/GJ for an RS 5 firm service customer	4	*Demand Charge*	$0.888	$1.011	$0.889
	5	*Delivery Charge*	$0.887	$0.887	$0.887
	6	*Total*	$1.775	$1.898	$1.776
RS 7 *General Interruptible Sales Service*	7	*Delivery Charge*	$1.455	$1.443156	$1.443
Differential (per GJ) *RS 5 – RS 7*	8		$0.320	$0.455	$0.334
Discount as a Percentage of Total Firm	9		18.0%	24.0%	18.8%

There have been, we note, no interruptions to RS7/27 customers for the last 10 years.[15]

Year	# Days	Notes	# of RS 7/27 customers curtailed	Total # of RS 7/27 customers
2006	1.5 days	Nov 28 until evening Nov	88	103
2007	0 days		0	101
2008	2.0 days	Dec 19 and Dec 20	86	102
2009	0 days		0	101
2010	0 days		0	105
2011	0 days		0	106
2012	0 days		0	100
2013	0 days		0	105
2014	0 days		0	105

[15] Exhibit B-8 FEI-BCOAPO IRs 9.1

2015	0 days		0	114
2016	0 days		0	113

FEI's evidence indicates that the increase of nine interruptible customers in 2015 was as a result of amalgamation of the gas utilities as well as some new customer additions within that year.

In our submission FEI has not completed a thorough enough analysis of the discount of RS5 to RS7. We note that the lost revenue to customers might be as high a $1.2 million if a more reasonable 10% discount were used instead of the proposed 18.8%.[16] FEI has conducted no studies to determine the price elasticity of its interruptible customers. The Utility should be required to file a comprehensive study of its interruptible customers to attempt to understand better the value of this service. For example, it is not clear to us that FEI even understands at this time the alternative backup arrangement or the practicality of actual interrupting customers or understanding how many might operate under conditions of unauthorized overrun.

While we accept the principle that interruptible customers have a valuable role in system design and in minimizing rates the ability of the Utility to use this practice to extract the best value for all customers is ultimately unclear.

General Terms and Conditions to the Rate Schedules

Security Deposits

FEI's current business practice is to return the security deposit to Residential customers after one year of good payment history. This practice is different than the language that currently exists in the Tariff, which outlines that security deposits are only required to be refunded to the customer upon termination of services, regardless of the length of time the customer is with FEI or their payment history[17].

[16] Exhibit B-8 FEI-BCOAPO IR 9.3
[17] Exhibit B-8 FEI-BCOAPO IR 11.6

FEI has proposed an amendment to Section 6.3 of the General Terms intended to align the tariff with the current business practice. However, the wording (including the use of the word "may") continues to provide discretion to the Utility.

Apparently, this is intended to provide for exceptions that may occur. FEI states that it anticipates that these exceptions would be very rare if they did occur. However, the return of customer deposits should be clear, regular and unequivocal. A customer with a good credit history with the utility – that is payment for a period of one year – should be entitled to the return of their deposit plus interest. We note that in other utilities, such as telephone and cable services the holding of a deposit is rare. It is not clear to us why natural gas customers should be subject to such restrictive policies. There is no evidence that residential customers pose an inherent or exceptional risk to the utility. To the contrary, it is clear from the evidence provided on FEI reports of accounts receivable there is evidence that commercial customers pose a significantly higher monetary risk than do residential customers[18].

Disconnection Policies

As shown in the table below disconnection can within 60 days of receiving a utility bill[19]

Dunning steps	Day
Invoice Rendered & Sent	1
Invoice Due Date	21
Bill Message on Next Bill	30
Automated Reminder Call	37
Automated Notice of	45
Collection Agent Contact	55
Pre-Disconnection Review	58
Disconnection	60
Final Bill (Due to no	80

[18] See for example the Accounts Receivable Overview Report Q1 2015 in Exhibit B-22 FEI-BCOAPO IR 43 Attachment 43.2
[19] Exhibit B-22, FEI-BCOAPO IR 14.0

Over the period 2011 to 2016, FEI has seen a reduction in total annual disconnections for non-payment of approximately 63%[20]. Notwithstanding that progress, a large number of residential customers are still impacted by FEI's disconnection policies as shown in the table below.[21]

RESIDENTIAL

2012	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total	% of NOD
Notices of Disconnection Issued	15,995	17,885	21,070	16,239	15,433	15,399	9,603	8,531	6,605	5,368	3,060	4,150	139,338	
Disconnection Service Orders	340	4,449	3,043	2,827	2,306	1,271	1,587	1,412	965	806	358	345	19,709	14%
Disconnected for Non-payment	177	2,427	1,963	1,911	1,628	907	1,245	1,122	754	580	218	203	13,135	9%
Closed after Disconnection	2	243	576	358	339	359	295	475	306	161	55	44	3,213	2%
2013	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**Total**	**% of NOD**
Notices of Disconnection Issued	8,653	7,503	14,002	10,981	9,903	8,059	6,659	5,168	4,191	4,253	4,405	3,476	87,253	
Disconnection Service Orders	909	1,292	1,554	2,144	2,338	1,721	1,593	1,037	899	714	533	408	15,142	17%
Disconnected for Non-payment	592	718	692	1,030	1,261	1,176	1,092	720	623	490	377	251	9,022	10%
Closed after Disconnection	58	129	164	165	415	375	397	379	242	117	64	49	2,554	3%
2014	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**Total**	**% of NOD**
Notices of Disconnection Issued	5,992	6,583	8,356	8,858	8,655	7,193	6,105	4,829	4,918	4,544	3,421	2,372	71,826	
Disconnection Service Orders	607	1,128	1,434	1,351	1,741	1,716	1,539	1,299	1,092	796	575	368	13,646	19%
Disconnected for Non-payment	467	668	907	887	1,161	1,214	1,101	928	722	591	390	264	9,300	13%
Closed after Disconnection	37	70	132	219	287	483	446	438	281	188	98	48	2,727	4%
2015	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**Total**	**% of NOD**
Notices of Disconnection Issued	7,777	6,259	8,639	6,559	5,760	5,675	4,407	2,727	2,842	2,406	2,292	1,631	56,974	
Disconnection Service Orders	690	1,233	1,266	1,236	1,079	1,085	991	604	463	391	332	225	9,595	17%
Disconnected for Non-payment	506	923	963	849	780	807	693	426	334	222	206	165	6,874	12%
Closed after Disconnection	65	121	245	252	268	370	344	211	166	98	72	26	2,238	4%
2016	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**Total**	**% of NOD**
Notices of Disconnection Issued	5,821	5,747	7,386	6,716	5,276	4,687	3,309	3,155	2,555	1,898	1,936	1,387	49,873	
Disconnection Service Orders	467	946	969	1,266	1,225	1,048	835	777	608	362	322	144	8,969	18%
Disconnected for Non-payment	255	532	697	715	839	801	594	570	416	268	270	44	6,001	12%
Closed after Disconnection	49	77	157	227	287	382	261	254	182	109	65	19	2,069	4%
2017	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	**Total**	**% of NOD**
Notices of Disconnection Issued	5,887	6,105	10,050	6,583	7,684	6,649	4,516	3,973	3,070	-	-	-	54,517	
Disconnection Service Orders	429	725	1,203	1,065	1,326	1,347	1,033	896	658	-	-	-	8,682	16%
Disconnected for Non-payment	226	337	859	680	709	837	750	755	464	-	-	-	5,617	10%
Closed after Disconnection	25	59	128	192	243	259	307	294	212	-	-	-	1,719	3%

In fact, somewhere in the range of 20% of customers are in arrears after 30 days. In their response, FEI noted that the analysis shown below makes the simplifying assumption that the total value of Residential customer arrears of 30 days or less was not collected in that month and that the arrears are based on billings from that month. As such, it is not based on actual payment data and the timing of payments as shown in the table which only provides an approximation of the percentage of customers in each interval. Nevertheless it is indicative of the how broad an issue arrears payments are for customers.[22]

[20] Exhibit B-22 FEI-BCOAPO IR 44
[21] Exhibit B-22 FEI-BCOAPO IR 7.0
[22] Exhibit B-22, FEI-BCOAPO IRs 17.0

Number of Residential Customers and Approximate Payment Timelines								
Year	Month	Total Residential Customers	Pay Within 30 Days		Pay Between 30 and 60 Days		Pay Between 60 and 90 Days	
			[1]		BCOAPO-FEI IR 2.11		BCOAPO-FEI IR 2.11	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2016	October	894,344	703,627	79%	83,236	9%	30,665	3%
2016	November	896,785	713,423	80%	81,041	9%	28,074	3%
2016	December	899,473	685,730	76%	105,749	12%	33,308	4%
2017	January	901,129	705,066	78%	87,813	10%	34,266	4%
2017	February	901,968	685,855	76%	111,103	12%	31,893	4%
2017	March	902,684	675,722	75%	120,254	13%	35,708	4%
2017	April	903,344	634,065	70%	154,122	17%	40,835	5%
2017	May	904,110	670,605	74%	116,267	13%	40,366	4%
2017	June	904,119	679,650	75%	109,806	12%	37,366	4%
2017	July	903,203	679,239	75%	103,986	12%	39,712	4%
2017	August	903,314	691,503	77%	95,394	11%	33,640	4%
2017	September	904,104	691,497	76%	95,434	11%	35,103	4%

Notes:

[1] Determined based on total customers each month less total number of customers in arrears as provided in BCOAPO-FEI IR 2.11

In its survey of low income energy assistance programs completed for the Ontario Energy Board the consulting firm Concentric Energy Advisors had this to say:

> Based on Concentric's research, it appears that low-income energy programs have been implemented in a number of different jurisdictions around the globe. As energy costs have continued to escalate during this decade, there has been renewed interest in addressing energy affordability, especially for low-income customers who are most vulnerable to price increases. Regulatory authorities are placed in the difficult position of trying to balance the mandate for just and reasonable rates with the social pressure to help those in need of rate assistance. Many jurisdictions have implemented policies that prohibit disconnection during certain times of the year or when the temperature falls below a specified level. Many have also implemented policies to protect senior citizens and those with medical conditions from disconnection, especially during extreme weather conditions.[23]

In our submission the Commission should consider ordering the elimination of winter disconnection. This practice, along with assistance for low income customers facing

[23] Exhibit A2-13 Elenchus Response-BCOAPO IR 16.3 Attachment 1: A review of Low Income Energy Assistance Measures Adopted in Other Jurisdictions, Concentric Energy Advisors, September 4, 2008

fuel or poverty have become well established in other Canadian and international jurisdictions.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

Yours truly,
BC Public Interest Advocacy Centre

Original on file signed by

Leigha Worth
Barrister & Solicitor
Executive Director