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August 31, 2017

British Columbia Public Interest Advocacy Centre
Suite 208 – 1090 West Pender Street
Vancouver, B.C.
V6E 2N7

Attention: Ms. Leigha Worth, Executive Director

Dear Ms. Worth:

Re: FortisBC Energy Inc. (FEI)

Project No. 3698899

2016 Rate Design Application (the Application)

Response to the British Columbia Public Interest Advocacy Centre representing the British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Disability Alliance BC, Council of Senior Citizens' Organizations of BC, and the Tenant Resource and Advisory Centre *et al.* (BCOAPO) Technical Information Requests (IRs) on COSA and Revenue to Cost Ratios

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On December 19, 2016, FEI filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-109-17 setting out the Regulatory Timetable for the review of the Application, FEI respectfully submits the attached responses to BCOAPO Technical IRs.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary
Registered Parties

1.0 Reference: Exhibit B-8, BCOAPO IR 7.4; Exhibit B-5, BCUC IR 17.3; Exhibit B-11, CEC IR 38.1

1.1. With respect to demand-related costs in the RS 1 class, is there a correlation between consumption and peak demand? That is, would it be likely that a residential customer with a higher annual consumption also experiences a higher than average peak demand?

Response:

FEI confirms that there is a positive correlation between consumption and peak day demand. Therefore, residential customers with higher than average annual consumption tend to have higher than average peak day demand. While there is a positive correlation between usage and peak day demand, this positive correlation does not always hold true in any particular case. This is demonstrated by the wide dispersion of residential customer load factors in Figure 7-8 on page 7-8 of the Application. A higher volume customer with a more than proportionately higher load factor could have a lower peak day demand than a lower volume customer.

1.2. If yes, then do low volume residential consumers have lower demand-related costs than higher than average residential consumers?

Response:

Generally, residential customers with lower than average annual consumption would have a proportionately smaller contribution to peak day demand and therefore cause lower demand-related costs. However, if a low volume customer has a lower load factor relative to a high volume customer with a higher load factor, then the lower volume customer may have a higher peak day demand. In that case, the low volume customer would have higher demand-related costs than the high volume customer. In the context of this discussion of demand-related costs it is important also to note that customer-related costs form another large component of the fixed costs to serve customers. The customer-related cost is the same for all residential customers regardless of their level of annual consumption.

2.0 Reference: Exhibit B-1, Application, p. 7-5 to 7-5 & 7-19 (Figure 7-9); Exhibit B-8, BCOAPO IR 7.5; Exhibit B-5, BCUC IR 18.2 & 18.3

2.1 Has FEI undertaken any study of the declining use of natural gas as a preferred fuel for space and water heating (Exhibit B-1, Application, pages 7-3 to 7-5) which considers the impact of various rate designs on customer fuel preference?

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.

2.2 It remains unclear from FEI's responses to previous information requests why a 5% increase in the Basic Charge was chosen (e.g. as opposed to 2% or 20%, or another percentage). Is the charge set to return proportion of contribution of revenues to the 2009 proportionate level as shown in Figure 7-9 (Application, page 7-19)? Or is the charge set of a qualitative assumption of the reasonableness of the increase?

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.

2.3 Is $27 the Basic Charge that would recover 100% of customer-related costs?

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.

3.0 Reference: Exhibit B-8, BCOAPO IR 9.2

3.1 Specifically, how were the avoided direct capital costs of $134.2 and $40.2 million as shown in Appendix 9-3 of the Application derived/estimated?

Response:

Based on the location of the Interruptible customers on FEI's system and actual historical demand, FEI's System Planning group estimated the length, size of pipe and whether a Transmission Pressure (TP), Intermediate Pressure (IP) or Distribution Pressure (DP) upgrade was required, as well as whether Station Upgrades were required. Engineering Services then provided the capital cost estimates. Pipeline cost estimates were based on recent project costs in both the Lower Mainland and in the Interior. The range of costs for a metre of pipe is between $100 and $400 per inch of diameter of the pipe. Pipeline installed costs include a 50% contingency, but do not include AFUDC and cost escalation; the estimates reflect differing assumptions based on whether the project location is in a densely populated urban environment or a rural environment. Where required, it has been assumed new duplicate stations would be built in the area to provide additional capacity.

When only RS 22 is changed from interruptible to firm the following avoided direct capital costs would be required:

	Size	Material	Pressure	Cost $000s
Lower Mainland Length (metres)				
2,500	NPS 10	Steel	IP	$3,750
1,900	NPS 30	Steel	IP	22,800
4,000	323 mm	Steel	IP	12,000
Distribution Stn. Upgrades				1,600
Total Avoided Cost				$40,150

When RS 7, 27 and 22 are changed from interruptible to firm the following avoided direct capital costs would be required:

	Size	Material	Pressure	Cost $000s
Lower Mainland Length (metres)				
2,500	NPS 10	Steel	IP	$3,750
2,140	NPS 30	Steel	IP	25,680
1,800	168 mm	Steel	IP	1,620
830	219 mm	Steel	IP	996
16,600	323 mm	Steel	IP	49,800
2,800	114 mm	PE	DP	944
1,050	168 mm	PE	DP	478
3,130	219 mm	PE	DP	1,756
Distribution Stn. Upgrade				3,200
Transmission Stn. Upgrade				3,800
Interior Length (metres)				
9,590	NPS 4	Steel	TP	4,130
2,600	NPS 8	Steel	TP	20,800
800	114 mm	PE	DP	250
3,950	168 mm	PE	DP	1,697
2,300	219 mm	PE	DP	1,235
Distribution Stn. Upgrade				5,800
Vancouver Island Length (metres)				
370	168 mm	PE	DP	159
Distribution Stn. Upgrade				8,100
Total Avoided Cost				$134,195

3.2 If, in moving from interruptible to firm service, $134 million of incremental costs are incurred to serve large volume firm users, why would these costs not be directly assigned to that class? That is, why would any of the incremental costs to serve this customer class accrue to the residential class as indicated in the response to the referenced information request?

Response:

The costs would not be directly assigned as the infrastructure that would have to be built would be part of the shared system of pipelines and stations that provide firm service to all firm customers, and likely would not be adjacent to or near the customer's place of business. In many cases there may be other firm load growth in the area contributing to the need for system upgrades, which would make it very difficult to determine which customers are responsible for the system upgrades.

Additionally, the COSA study that is used to estimate the cost to serve customers of the various rate schedules is an embedded cost study, not an incremental cost study. It is impossible to derive the historical incremental costs that were incurred to serve customers in the various rate schedules. FEI believes that it is unfair to single out interruptible industrial customers, if they were to move to firm service, as being responsible for incremental costs while all other current firm customers, whether in industrial or any of the other firm service rate schedules, have their rates based on embedded costs and can increase or decrease their load without incurring special charges to do so.

4.0 Reference: Exhibit B-8, BCOAPO IR 9. 1 & 9.3

4.1 FEI indicates that changes to the interruptible rates that increase revenues, but lower the benefits to interruptible customers, might cause a move to firm service and thereby an increase in costs to meet these firm service requirements. What elasticity of demand study has FEI done which would corroborate the supposition that a modest increase in interruptible rates would lead to interruptible customers moving to firm service?

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.

4.2 Since 2015, the number of interruptible customers has increased by nearly 10% (100-105 to 113-114). Are the additional customers since 2014 new customers or existing customers who have opted for all or a portion of their deliveries on an interruptible basis?

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.

4.2.1 Please explain the reasons for the recent increase in customers taking interruptible service.

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.

5.0 Reference: Exhibit B-8, BCOAPO IR 10.4

5.1 FEI has provided a qualitative response to the question of benefits accruing to RS 1 and RS 2 customers if new load balancing provisions are approved. Has FEI undertaken any quantitative analysis of the benefits of more stringent balancing provisions on the various customer classes? If so, please provide that analysis. If no such studies have been undertaken, does FEI have any estimate of quantum of the benefits of new load balancing provisions?

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.

6.0 Reference: Exhibit B-8, BCOAPO IR 11.3

6.1 Please provide the current actual interest rate which is being applied to cash security deposits. How often is this rate recalculated (in accordance with the response to the referenced information request) and applied to outstanding security deposit balances?

Response:

FEI has not responded to this request at this time as it is not within the scope of technical questions on COSA and revenue to cost ratios, as set out in the regulatory schedule approved by the Commission for this proceeding. FEI respectfully requests that BCOAPO resubmit this information request as part of Information Request No. 2 to FEI.