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

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

Dear Sirs/Mesdames:

Re: FortisBC Energy Inc. 2016 Rate Design Application

In accordance with the Regulatory Timetable set for this proceeding by Order G-109-17, we enclose for filing the electronic version of the Final Argument of FortisBC Energy Inc. on the COSA and revenue to cost ratios.

Yours truly,

FASKEN MARTINEAU DuMOULIN LLP

[Original signed by Christopher Bystrom]

Christopher Bystrom

Encl.

BRITISH COLUMBIA UTILITIES COMMISSION
IN THE MATTER OF THE UTILITIES COMMISSION ACT,
R.S.B.C. 1996, CHAPTER 473

and

FORTISBC ENERGY INC.
2016 RATE DESIGN APPLICATION

COSA STUDIES AND RANGE OF REASONABLENESS

FINAL SUBMISSION OF
FORTISBC ENERGY INC.

SEPTEMBER 18, 2017

TABLE OF CONTENTS

PART ONE: INTRODUCTION	1
PART TWO: COSA STUDIES	2
A. INTRODUCTION.....	2
B. SIGNIFICANT DEPTH OF EVIDENCE SUPPORTS COSA STUDIES	3
C. COSA STUDIES AND APPLICATION BENEFITED FROM EARLY CONSULTATION	3
D. COSA STUDIES CONSISTENT WITH STANDARD PRACTICE, PAST PRECEDENT AND COST CAUSATION AS FOUND BY EES CONSULTING	4
E. ELENCHUS' CONCLUSIONS SUPPORT FEI'S COSA STUDIES	5
F. COSA MODELS BASED ON REASONABLE ASSUMPTIONS	6
G. SUPPORTING STUDIES ARE REASONABLE AND APPROPRIATE.....	8
(a) <i>Minimum System Study is Reasonable and Appropriate</i>	<i>9</i>
(b) <i>Customer Weighting Factors are Reasonable.....</i>	<i>11</i>
H. TREATMENT OF LARGE VOLUME INDUSTRIAL TRANSPORTATION CUSTOMERS IN COSA IS CONSISTENT WITH PAST PRACTICE.....	12
(a) <i>Treatment of Rate Schedules 22A and 22B is Consistent with Commission Determinations.....</i>	<i>13</i>
(b) <i>Treatment of BC Hydro IG and VIGJV in COSA Consistent with Past Practice.....</i>	<i>14</i>
I. GAS COST ALLOCATION REASONABLE AND APPROPRIATE	15
J. CONCLUSION	16
PART THREE: RANGE OF REASONABLENESS.....	17
A. INTRODUCTION.....	17
B. A RANGE OF REASONABLENESS IS NECESSARY	18
C. COMMISSION HAS CONSISTENTLY USED A RANGE OF REASONABLENESS OF 90 TO 110 PERCENT FOR NATURAL GAS UTILITIES	19
D. RANGE OF REASONABLENESS FOR ELECTRIC UTILITIES NOT APPLICABLE DUE TO SUPERIOR DATA.....	21
E. EES CONSULTING AND ELENCHUS BOTH AGREE THAT 90 TO 110 PERCENT IS REASONABLE AND OFTEN USED IN INDUSTRY	23
F. R:C RATIOS ARE PREFERABLE TO M:C RATIOS.....	28
G. CONCLUSION	29
PART FOUR: CONCLUSION	30

PART ONE: INTRODUCTION

1. The FortisBC Energy Inc. (“FEI”) 2016 Rate Design Application (the “Application”)¹ reflects a full and comprehensive review of the rate design for FEI and the Fort Nelson Service Area (“Fort Nelson”). This final written argument addresses the two key topics identified by the Commission for early resolution through a Streamlined Review Process (“SRP”):²

- (a) The Cost of Service Allocation (“COSA”) studies included in the Application; and
- (b) Whether the revenue to cost (“R:C”) ratio; the margin to cost (“M:C”) ratio; or a combination of both R:C and M:C ratios should be used to guide rate design and the corresponding range(s) of reasonableness of the selected ratio(s).

2. As the outcome of this first component of FEI’s rate design proceeding, FEI requests that the Commission approve FEI’s COSA studies for FEI and Fort Nelson, and a range of reasonableness of 90 to 110 percent of the R:C ratio. For clarity, by seeking this approval, FEI is requesting that the Commission determine that the methodologies used by FEI in its COSA studies and its proposed range of reasonableness are reasonable and appropriate for the purposes of FEI’s rate design and setting rates for the utility. After these methodological topics are determined by the Commission, the rate design proposals can be more easily evaluated by the Commission, including how rate design proposals impact the results of the approved COSA and whether rebalancing may ultimately be required for R:C ratios outside the approved range of reasonableness.

3. While cost of service allocation is as “much art as science”,³ FEI has taken the steps necessary to ensure that the COSA studies and range of reasonableness for its rate design are reasonable and appropriate for use in setting rates. FEI conducted its COSA studies

¹ Exhibits B-1, B-1-1, B-1-1-1, B-1-2, and B-1-3.

² Order No. G-109-17.

³ Exhibits A2-2, Review of FortisBC Energy Inc. Cost of Service Allocation Studies for the 2016 Rate Design Application (the “Elenchus COSA Report”), p. 8, l. 9.

consistent with past practice and industry standards, in consultation with an industry expert in cost of service allocation and rate design (EES Consulting, Inc.), and in consultation with stakeholders. In its filed materials, FEI clearly explained its COSA studies and range of reasonableness, which has enabled a robust review by the Commission, interveners and the independent consultant retained by the Commission, Elenchus Research Associates Inc. (“Elenchus”). The filing of FEI’s Application was followed by two workshops and two rounds of information requests, two reports by Elenchus, information requests on those reports, and the SRP held on September 12, 2017. FEI submits that the substantial body of evidence in this proceeding, including Elenchus’ conclusions, support the validity of FEI’s COSA studies, including the use of FEI’s proposed range of reasonableness.⁴

PART TWO: COSA STUDIES

A. INTRODUCTION

4. In this Part, FEI reviews the evidence related to its COSA studies and addresses the key areas of interest explored during the proceeding. As reviewed below, FEI conducted the COSA studies for FEIs and Fort Nelson in accordance with standard utility practice and with stakeholder consultation. EES Consulting reviewed FEI’s COSA methods and found them to be consistent with standard utility practice, and generally consistent with past practice for the utility. EES Consulting concludes that the results of the COSA studies are acceptable for purposes of setting just and reasonable rates for the utility. The conclusions of Elenchus also support the validity of FEI’s COSA study, except for the 10-year levelized treatment of the Tilbury Expansion Project costs and revenues. Despite Elenchus’ comments, FEI’s treatment of the Tilbury Expansion Project is reasonable and warranted in light of the unique circumstances of the project. The treatment of the Tilbury Expansion Project and other key topics related to the COSA study that were explored in IRs or at the SRP are addressed below. FEI requests that

⁴ FEI acknowledges that Elenchus has indicated that the 10-year levelized approach for the Tilbury Expansion Project is not a treatment it has seen others use, and sees merit in the use of M:C ratios.

⁵ Unless otherwise apparent from the context, “FEI” will be generally be used to indicate FEI’s service area excluding the Fort Nelson Service Area.

the Commission find that the methodologies of the COSA studies are reasonable, and appropriate for the purposes of FEI's rate design and setting rates for the utility.

B. SIGNIFICANT DEPTH OF EVIDENCE SUPPORTS COSA STUDIES

5. This proceeding has resulted in a significant level of evidence in support of FEI's COSA studies. FEI's COSA studies are described in Sections 6 of the Application (for FEI) and Section 13.4 of the Application (for Fort Nelson), with supporting information in Appendices 6-1 to 6-11 for FEI and Appendices 13-1 to 13-5 for Fort Nelson. FEI filed a functional electronic version of the COSA model as Exhibit B-3. Exhibits B-2 and B-4 and Transcripts Volumes 1 and 2 are records of the presentations provided by FEI in the two workshops early in this proceeding. These workshops reviewed, amongst other items, the COSA methodology and results. FEI responded to two rounds of information requests on its COSA studies, followed by its presentation and responses to further questions at the SRP. In addition to EES Consulting's review of the COSA in Appendix 6-1 of the Application, Elenchus also reviewed FEI's COSA and range of reasonableness in its two reports,⁶ each of which were subject to a round of information requests. FEI submits that this rigorous level of testing has demonstrated that FEI's approach to its COSA is methodologically sound, and that the Commission can be confident in the reasonableness of the results for the purposes of cost allocation and rate design.

C. COSA STUDIES AND APPLICATION BENEFITED FROM EARLY CONSULTATION

6. FEI's COSA studies and FEI's explanation of its methodologies in the Application benefited from consultation with stakeholders early in the process. Prior to filing the Application, FEI conducted a stakeholder engagement process consisting of information sessions and stakeholder workshops.⁷ The objective of the workshops was to engage stakeholders and to collaborate in understanding, compiling and summarizing a key issues list

⁶ Exhibits A2-2, Elenchus COSA Report; and Exhibit A2-10, Elenchus, Review of FortisBC Energy Inc. Rate Design Methodology for the 2016 Rate Design Application (the "Elenchus Rate Design Report").

⁷ Exhibit B-1, Application, p. 1-1. FEI's stakeholder engagement is described in detail in Section 4 of the Application. Stakeholder engagement specific to Fort Nelson is described in Exhibit B-1-1, Supplemental Filing, p. 13-9.

which could then be used to focus the scope of the Application. The first workshop was on the topic of the COSA.⁸ As recorded in the Summary Notes and Key Issues List from the workshop,⁹ FEI responded to numerous questions, and took away a list of items for consideration in its Application.¹⁰ FEI's COSA studies and Application materials were thus informed and improved by an early process of stakeholder engagement.

D. COSA STUDIES CONSISTENT WITH STANDARD PRACTICE, PAST PRECEDENT AND COST CAUSATION AS FOUND BY EES CONSULTING

7. As concluded by EES Consulting, FEI's COSA studies are based on appropriate methodologies and take into account standard practice, past precedent and cost causation.¹¹ EES Consulting, an industry expert in rate design,¹² provided assistance to FEI throughout the process by providing a review of standard and alternative COSA methodologies, input as to the appropriate methodology to use given the unique circumstances of the utility, and review of the COSA model.¹³ EES Consulting's report, found in Appendix 6-1 of the Application, includes an overview of the COSA, a jurisdictional review of COSA methodology, and a review of FEI's Functionalization, Classification and Allocation methods including all supporting studies. EES Consulting found that the "overall COSA approach used for FEI COSA follows the standard three step process that is generally accepted for embedded costs studies".¹⁴ EES Consulting found "that the COSA follows standard utility practice, is generally consistent with past practice for the utility and the results are acceptable for purposes of setting just and reasonable rates for the utility."¹⁵

⁸ The Discussion Guide for Workshop #1 is included in Appendix 4-3 of the Application.

⁹ Exhibit B-1, Appendix 4-2, July 11, 2016 Workshop 1 COSA - Summary Notes & Key Issues List (pdf pp. 682-700).

¹⁰ Exhibit B-1, Application, p. 4-1.

¹¹ Exhibit B-1, Application, Appendix 6-1, EES Report, p. 1.

¹² Exhibit B-1, Application, p. 1-2.

¹³ Exhibit B-1, Application, Appendix 6-1, EES Report, p. 1.

¹⁴ Exhibit B-1, Application, Appendix 6-1, EES Report, p. 5.

¹⁵ Exhibit B-1, Application, Appendix 6-1, EES Report, p. 1.

E. ELENCHUS' CONCLUSIONS SUPPORT FEI'S COSA STUDIES

8. Elenchus' conclusions also support FEI's COSA studies. Elenchus was retained by the Commission to provide an independent, expert review of FEI's COSA studies.¹⁶ Elenchus' conclusions are provided in its COSA Report and Rate Design Report filed in this proceeding as Exhibit A2-2 and A2-10. Elenchus' conclusions endorse FEI's COSA approach. Notably:

- (a) Elenchus supports FEI's use of the 2016 test year with adjustments for the preparation of the COSA. Elenchus stated that, based on its experience, the test year used in a cost of service allocation study reflects the normal operating conditions for a utility, and known changes from past operations should be incorporated in the test year data as known adjustments.¹⁷ Elenchus understood that the adjustments made by FEI in its COSA study reflect how FEI expects to operate in 2018 and Elenchus supported these adjustments as they reflect expected normal operating conditions for FEI in 2018.¹⁸
- (b) Elenchus found that the functions used by FEI are appropriate and reflect the various activities that FEI is involved in during the delivery of natural gas to its customers.¹⁹
- (c) Elenchus agreed with the classifications used by FEI in the COSA studies.²⁰
- (d) Elenchus agreed with the allocators used by FEI in the COSA study as they are the standard allocators used by utilities in COSA studies. Elenchus also accepted FEI's explanation of the reasons for using coincident peak as an allocator instead of non-coincident peak and that the results would be unchanged even if the data would be available.²¹

¹⁶ Exhibit A2-1.

¹⁷ Exhibit A2-2, Elenchus COSA Report, p. 22.

¹⁸ Exhibit A2-2, Elenchus COSA Report, p. 22.

¹⁹ Exhibit A2-2, Elenchus COSA Report, p. 11.

²⁰ Exhibit A2-2, Elenchus COSA Report, p. 15.

²¹ Exhibit A2-2, Elenchus COSA Report, pp. 17-18.

- (e) Elenchus agreed with the allocation of commodity gas costs to FEI's customers. Commodity gas costs are a flow through cost for FEI sales customers and depend on the amount of natural gas used by sales customers; therefore, energy is the allocator to use that reflects cost causality.²²
- (f) Elenchus is of the view "that the allocation method used in Fort Nelson's cost allocation study is appropriate and is consistent with the allocation used in FEI's cost allocation study".²³

9. Elenchus identified four areas in FEI's COSA studies that were different than what Elenchus has seen in its experience.²⁴ For two of these areas, Elenchus accepted FEI's explanation of its methodology, while a third area was addressed when FEI amended its Application to include a Fort Nelson-specific Peak Load Carrying Capacity ("PLCC"). The only area which was not resolved was FEI's 10-year levelized approach to the Tilbury Expansion Project costs and revenues. As set out below, FEI's proposed treatment for the Tilbury Expansion Project is appropriate given the unique circumstances of this project.

F. COSA MODELS BASED ON REASONABLE ASSUMPTIONS

10. The costs and revenues used in the FEI COSA study reflect FEI's approved 2016 test year.²⁵ The 2016 approved costs reflect current operating conditions, reflect the amalgamation of FEI, and were the most recent available approved costs at the time the COSA study was prepared.²⁶ The Fort Nelson COSA model is based on approved costs for 2018.²⁷ Use

²² Exhibit A2-2, Elenchus COSA Report, p. 19.

²³ Exhibit A2-2, Elenchus COSA Report, p. 25.

²⁴ Transcript Volume 5, pp. 429-433.

²⁵ Exhibit B-1, Application, p. 6-1. The 2016 Approved amounts were adjusted for the factors described in section 6.3.1 of the Application.

²⁶ Exhibit B-1, Application, p. 6-6.

²⁷ Exhibit B-1-1, Supplemental Filing, p. 13-13 to 13-15. FEI made one adjustment to the 2018 approved forecast to reflect that one of the RS 25 customers moved from RS 25 to Rate 2.1.

of an approved forecast test year is consistent with FEI's historical practice to use a forecast test year when developing the COSA models supporting rate design.²⁸

11. FEI's COSA model includes known and measurable changes for projects expected to be in-service by or soon after January 1, 2018.²⁹ The known and measurable changes are for the Lower Mainland Intermediate Pressure System Upgrade Project ("LMIPSU"), the Coastal Transmission System Project ("CTS"), and the Tilbury Expansion Project.³⁰ The Tilbury Expansion Project is unique amongst these projects as it has incremental volumes and revenues associated with it, which are expected to grow over time. Therefore, instead of using a forecast of costs as of 2018 and the first year revenues, FEI has used a 10-year levelized forecast of the costs and revenues in the COSA to represent the medium term impact that the Tilbury Expansion Project will have on FEI's customers.³¹

12. While Elenchus has commented that a 10-year levelized approach has not been applied by other utilities in their experience,³² Mr. Roger, for Elenchus, commented that it is correct for a utility to reflect its own circumstances in its COSA study:

So, those are the four areas that we've identified based on our review that FEI proposals were slightly different than what we've seen based on our experience. Some of them they've explained to us why they've done it, we've accepted their explanations. In others, we think that it is not what other utilities are doing. But as Mr. Gosselin said, there are a lot of assumptions going on in cost allocation studies, and it is correct for a utility to reflect their own circumstance in their study. Cost allocation is more art than science. There is not going to be one right answer and a wrong answer. But, it should reflect their own utility circumstances. [Emphasis added.]³³

²⁸ Exhibit B-1, Application, pp. 6-6 to 6-10.

²⁹ Exhibit B-1, Application, p. 6-10.

³⁰ Exhibit B-1, Application, p. 6-10.

³¹ Exhibit B-1, Application, p. 6-11; Exhibit B-5, BCUC-FEI IR 1.9.2.

³² Transcript Volume 5, p. 431.

³³ Transcript Volume 5, pp. 432-433.

13. In FEI's view, the unique attributes of the Tilbury Expansion Project warrant exceptional treatment.³⁴ A new LNG facility that attracts its own revenue stream in a new and expanding market is in fact exceptional. As explained by Mr. Gosselin:

The one difference that Tilbury has from the other major projects we have included and also perhaps different than the GTA project as described by Elenchus is the fact that it has a distinct revenue stream, and not a revenue stream for our existing customers that are there on the system, but a revenue stream that -- from new customers that this particular asset is being built for. So, as that LNG market develops, the LNG customers, the expected revenue stream should grow over time to the capacity of the system.³⁵

14. Pursuant to Direction No. 5, the costs and revenues from the Tilbury Expansion Project are allocated to all non-bypass customers.³⁶ In these circumstances, FEI's proposed inclusion of 10-year levelized costs and revenues for the Tilbury Expansion Project is reasonable and appropriate. It provides a more accurate estimate of the revenues from the project over the medium term, and will produce more similar cost allocation results over time, keeping rates more stable for customers.³⁷ As FEI expects to conduct a COSA every 4-6 years,³⁸ a 10 year levelized approach will help ensure that the Tilbury Expansion Project is reflected appropriately over the period that the current COSA is an input to establishing rates and also similarly to what will be in the next COSA. In summary, the particular attributes of FEI's Tilbury Expansion Project make a 10-year levelized approach reasonable and superior to a more traditional approach.

G. SUPPORTING STUDIES ARE REASONABLE AND APPROPRIATE

15. The COSA studies follow the three standard steps of functionalization, classification and allocation.³⁹ FEI used two studies in support of the classification and

³⁴ Transcript Volume 5, p. 537.

³⁵ Transcript Volume 5, p. 536.

³⁶ B.C. Reg. 245/2013, as amended, Section 4(2).

³⁷ Transcript Volume 5, pp. 536-537.

³⁸ Exhibit B-5, BCUC-FEI IR 1.12.3.

³⁹ Exhibit B-1, Application, p. 6-2.

allocation of the cost of service: the Minimum System Study (“MSS”) and Customer Weighting Factors.

(a) Minimum System Study is Reasonable and Appropriate

16. FEI’s MSS and PLCC adjustment follow industry accepted practices and are reasonable for use in FEI’s COSA studies. The result of the MSS determines the proportion of distribution mains costs that are customer related (i.e., required to connect customers) versus costs that are demand related (i.e., required to meet customer’s peak demand).⁴⁰ The PLCC adjustment is used to reduce the demand allocator to reflect the demand-related costs that are embedded in the capacity of the minimum system.⁴¹

17. The MSS assumes that the actual pipe diameters could be replaced with only those pipe diameters that comprise the minimum distribution system (i.e., all pipe diameters equal to or less than 60 mm).⁴² Using 60 mm pipe is the appropriate approach in this case as it is FEI’s minimum standard.⁴³ Since 2008, FEI’s standard has been to connect customers to a new main that is at minimum a 60 mm size pipe, and it is by exception only that a smaller main would be used.⁴⁴ As 60 mm pipe is installed more frequently, the costing data for the installation of 60 mm pipe is very good, which results in better estimates for the MSS.⁴⁵ Elenchus states that the MSS should be based on the minimum standard in place,⁴⁶ and

⁴⁰ Exhibit B-1, Application, p. 6-4; Transcript Volume 5, p. 404.

⁴¹ Exhibit B-1, Application, p. 6-5.

⁴² Exhibit B-1, Application, p. 6-18.

⁴³ Exhibit B-5, BCUC-FEI IR 1.7.3.

⁴⁴ Exhibit B-5, BCUC-FEI IR 1.7.2 and 1.7.3. For example, while approximately 766 metres of 42 mm pipe were installed in 2015 and 561 metres in 2016, approximately 108,753 metres of 60 mm pipe was installed in 2015 and 65,570 metres in 2016.

⁴⁵ Transcript Volume 5, p. 407.

⁴⁶ Exhibit A2-5, BCUC-Elenchus IR 1.4.2: “Based on Elenchus experience, utilities that apply the minimum system method to classify distribution mains between customer and demand related use the size of mains currently being installed.”

indicated that the key consideration in determining the size of the minimum system size should be the availability of appropriate cost data.”⁴⁷

18. The MSS with PLCC adjustment is consistent with past practice for FEI and other utilities in British Columbia. For instance, the minimum system approach with PLCC adjustment was used in the 2009 FortisBC Inc. (Electric) Rate Design Application and in FEI’s 2012 Amalgamation Application.⁴⁸

19. FEI’s approach is supported by both experts in this proceeding:

- (a) EES Consulting validated FEI’s MSS with a PLCC adjustment. EES concluded that the minimum system approach is consistent with past practice of the utility and is generally accepted in the utility industry.⁴⁹ EES Consulting reviewed FEI’s PLCC calculations and concurred with the results.⁵⁰
- (b) Elenchus also validated FEI’s use of a MSS with a PLCC adjustment. Elenchus stated that the use of minimum system with PLCC adjustment and/or the zero-intercept method has been accepted as a classification methodology for distribution related assets and costs based on Elenchus’ experience.⁵¹ Elenchus remarked that it has seen the minimum system method applied more often by utilities than the zero intercept method. ⁵² Elenchus stated that it “considers the 60 mm to be an appropriate minimum system standard.”⁵³ Elenchus also notes that FEI utilizes the PLCC adjustment to recognize the load carrying capacity of

⁴⁷ Exhibit A2-5, BCUC-Elenchus IR 1.4.2.

⁴⁸ Exhibit B-1, Application, p. 6-18.

⁴⁹ Exhibit B-1, Application, Appendix 6-1, EES Report, p. 20.

⁵⁰ Exhibit B-1, Application, Appendix 6-1, EES Report, p. 20.

⁵¹ Exhibit A2-2, Elenchus COSA Report, p. 15.

⁵² Exhibit A2-2, Elenchus COSA Report, p. 15.

⁵³ Exhibit A2-5, BCUC-Elenchus IR 1.5.1.

minimum pipe. This adjustment further minimizes the impact of the choice of minimum pipe size on the overall COSA result.⁵⁴

20. FEI's MSS and PLCC are conducted in accordance with industry standards and past practice, and are supported by both EES Consulting and Elenchus. FEI requests that the Commission find that the results of its MSS and PLCC are reasonable for use in the COSA studies.

(b) Customer Weighting Factors are Reasonable

21. FEI used two types of weighting factors to allocate Customer costs in the COSA: a Weighting Factor for Meters and Services; and a Weighting Factor for Administration and Billing.⁵⁵ These weighting factors are used to reflect the fact that larger volume customers require more expensive meter sets, and require a greater level of administrative effort and customer service.⁵⁶

22. The Weighting Factors for Meters and Services are estimated values indicating the total relative value of meter and service assets associated with a specific rate schedule as compared to Rate Schedule 1. FEI provided detailed calculations supporting the Weighting Factor for Meters and Services, showing the cost of meter and service assets used to serve each rate schedule.⁵⁷

23. The Weighting Factors for Administration and Billing are divided into three tiers: approximately 1.0 for Rate Schedules 1 to 4; 43.0 for Rate Schedules 5 to 7; and 75.0 for Rate Schedules 22 to 27.⁵⁸ These factors were developed based on discussions with FEI's customer

⁵⁴ Exhibit A2-5, BCUC-Elenchus IR 1.5.1.

⁵⁵ Exhibit B-1, Application, page 6-25 and Appendix 6-8. Also see Exhibit B-15, FEI's response to BCUC Technical IR 1.2.1 for a discussion of some of the amounts in the calculation.

⁵⁶ Exhibit B-1, Application, pp. 6-24 to 6-26; B-19, Presentation, Slides 15 and 16.

⁵⁷ Exhibit B-8, Attachment 6.6a.

⁵⁸ Exhibit B-1, Application, Table 6-15, p. 6-25.

service managers using their insight and experience, and input from EES Consulting.⁵⁹ The internal knowledge of FEI staff took into consideration: the frequency of meter reading, the use of remote meter reading via cellular or other communications infrastructure, the method of collecting and retaining load data, the amount of time spent by customer service responding to inquiries, marketing programs and costs for different customer groups, the existence of dedicated account managers for commercial and industrial customers and the number of resources dedicated to each customer class for billing, measurement and marketing.⁶⁰ The majority of the effort and, consequently, factor weighting difference comes from the resources dedicated to billing transportation customers and from the dedicated account managers for the commercial and industrial customers.⁶¹ At the SRP, FEI showed that an analysis of the number of Key Account Managers dedicated to industrial customers, and the number of Billing and Measurement Staff dedicated to Transport Customers supported the weighting factors.⁶²

24. FEI's Customer Weighting Factors are reasonable and appropriate, as they reflect the cost to serve FEI's different rate schedules based on the cost of their meters and services, and the amount of administrative effort as exemplified by dedicated staff to industrial and transport customers.

H. TREATMENT OF LARGE VOLUME INDUSTRIAL TRANSPORTATION CUSTOMERS IN COSA IS CONSISTENT WITH PAST PRACTICE

25. The treatment of industrial customers in the COSA was explored at the SRP. In this section, FEI explains why its treatment of these customers is appropriate and that any change to the treatment is a rate design decision that should be determined at a later stage of this proceeding.

⁵⁹ Exhibit B-15, BCUC-FEI Technical IR 1.3.1.

⁶⁰ Exhibit B-1, Application, pp. 6-25 to 6-26; Exhibit B-15, BCUC-FEI Technical IR 1.3.1.

⁶¹ Exhibit B-15, BCUC-FEI Technical IR 1.3.1.

⁶² Exhibit B-19, SRP Presentation, p. 17.

(a) Treatment of Rate Schedules 22A and 22B is Consistent with Commission Determinations

26. FEI's treatment of Rate Schedules 22A and 22B in FEI's COSA is consistent with the Commission determination to close these rate schedules in its 1993 Phase B Rate Design Decision.⁶³ As Mr. Gosselin explained, Rate Schedules 22A and 22B are grandfathered with respect to their terms and conditions of service and also with respect to how FEI generally allocates costs to them in the COSA. Consistent with how the rates for these customers were originally derived, FEI did not allocate a portion of distribution costs to Rate Schedules 22A and 22B. As a result, the rates for Rate Schedules 22A and 22B are lower than other industrial customers under the existing Rate Schedule 22, or under FEI's proposed Rate Schedule 22.⁶⁴

27. Changing the cost allocation to Rate Schedules 22A and 22B is a rate design issue that could be determined by the Commission in the rate design component of this proceeding. Section 9.8 of the Application describes how FEI is proposing to continue Rate Schedules 22A and 22B as closed service offerings, with grandfathered terms and conditions as previously approved by the Commission.⁶⁵ As explained by Mr. Gosselin, the alternative to grandfathering these customers is that they could be grouped with Rate Schedule 22 customers, the Vancouver Island Gas Joint Venture ("VIGJV") and BC Hydro Island Generation ("BC Hydro IG") in the new proposed Rate Schedule 22, and similarly allocated distribution and transmission costs.⁶⁶ This, however, is a rate design issue that is not within scope of this component of the proceeding.

28. The issue of rebalancing of Rate Schedules 22A and 22B is also outside the scope of this component of the proceeding. As shown in Table 12-2 of the Application, the R:C ratios of both Rate Schedules 22A and 22B fall within the range of reasonableness in FEI's initial COSA.

⁶³ Exhibit B-1, Application, p. 9-38. In the 1993 Phase B Rate Design Decision, the Commission concluded: "In considering the matter of closing Schedules 22A and 22B, the Commission is aware of the many special circumstances and negotiated agreements underlying the existing rates for these interior customers. ... The Commission therefore approves the closing of Schedules 22A and 22B ..." (Commission Order G-101-93 and Decision dated October 25, 1993, pages 44, 45.)

⁶⁴ Transcript Volume 5, p. 487-488.

⁶⁵ Exhibit B-1, Application, pp. 9-37 to 9-39.

⁶⁶ Transcript Volume 5, p. 487-488.

It is only after taking into account the changes to the COSA due to rate design proposals that the R:C ratio of RS 22A shifts to 113%, outside of the range of reasonableness.⁶⁷ FEI explained why it is not proposing to rebalance RS 22A as follows:

FEI is not proposing to rebalance RS 22A this is a closed rate schedule. RS 22A and RS 22B are not allocated costs in a postage stamp manner in the COSA as they are not allocated a portion of FEI's distribution system costs. FEI has continued to allocate costs in this manner to be consistent with past practice and the rate schedules' grandfathered status. Rebalancing the charges under RS 22A would be inconsistent with continuing to grandfather the terms and conditions of service under this rate schedule. Since RS 22 is available for all large industrial customers, grandfathered RS 22A (and RS 22B) customers may elect this rate schedule as an alternative.⁶⁸

29. As explained by Mr. Gosselin at the SRP, since the grandfathered treatment of RS 22A results in lower rates compared to other large industrial customers, rebalancing RS 22A downward would be an unexpected result.⁶⁹ However, any need for rebalancing of RS 22A can only be determined in the context of the changes to the COSA due to rate design changes, and is therefore not in scope of this component of the proceeding.

(b) Treatment of BC Hydro IG and VIGJV in COSA Consistent with Past Practice

30. FEI has also treated the VIJGV and BC Hydro IG in its COSA consistent with past practice. FEI explained as follows in the Application:

Large industrial contract customers (referred to as contract customers) are those customers that have historically negotiated their rates with FEI. Contract customers' rates are fixed in their respective transportation service agreements. Contract customers served from the Vancouver Island transmission system include the VIGJV and the BC Hydro IG. All contract customer rates are approved by the Commission.

The COSA model (prior to any rate design proposals in the Application) treats bypass and contract customer revenues as credits to the cost of service and

⁶⁷ Exhibit B-1, Application, Table 12-2.

⁶⁸ Exhibit B-1, Application, p. 12-6.

⁶⁹ Transcript Volume 5, p. 488.

allocates that credit to each sales and non-contract transportation service rate schedule. This approach is consistent with past practice.

However, contract customers and large industrial rate schedules are evaluated in consideration of industrial customer segmentation and rate design in Section 9 of the Application, including specific consideration of the Joint Venture and BC Hydro IG.⁷⁰

31. A decision to change the treatment of the VIGJV and BC Hydro IG in the COSA would result from a rate design determination that should be addressed in the later stage of this proceeding. As explained in section 9.8 of the Application, FEI's proposal is to create a new firm and interruptible rate applicable to all large industrial customers, including existing RS 22 customers, the VIGJV and BC Hydro IG. Both the VIGJV and BC Hydro IG are taking service under approved contracts, and may continue to do so, but could choose to take service in the future under the proposed RS 22. The topic of the proposed RS 22, however, is a rate design issue that is not within the scope of this component of the proceeding.

I. GAS COST ALLOCATION REASONABLE AND APPROPRIATE

32. The only change in FEI's approach to allocation of its gas costs in FEI's COSA study is the load factor for Rate Schedule 5 (General Firm Service) customers.⁷¹ FEI currently allocates midstream costs to Rate Schedule 5 using a deemed 50 percent load factor. This value was established as part of the 1996 Rate Design Application Negotiated Settlement Agreement. Since the 50 percent deemed load factor result was established by way of a negotiated settlement, the rationale for adopting it is not a matter of public record.⁷² FEI contracts for its midstream resources based on a peak day demand that is derived using a calculated load factor for Rate Schedule 5, not a deemed load factor. This discrepancy means that the cost of the resources being contracted for is not being allocated to Rate Schedule 5 in the same way in which they were caused. Based upon the rate design principles to fairly apportion costs among customers and set price signals that encourage efficient use, FEI is proposing to utilize the same

⁷⁰ Exhibit B-1, Application, p. 6-9.

⁷¹ Exhibit B-1, Application, p. 6-27.

⁷² Exhibit B-11, CEC-FEI IR 1.18.1.

approach for allocating midstream costs to Rate Schedule 5 as it does for Rate Schedules 1, 2, and 3 by using a three-year rolling average load factor. Under the new approach the load factor used to allocate midstream costs to Rate Schedule 5 would be approximately 45 percent.⁷³ FEI requested specific approval in its Application of this change in FEI's approach to allocation of its gas costs for transparency, given that the previous approach was specifically approved by the Commission as part of a past negotiated settlement.

33. Fort Nelson's current gas cost allocation methodology allocates gas costs (both commodity and midstream) to sales customers using forecast annual consumption.⁷⁴ The proposed gas cost allocation methodology classifies the commodity costs as energy-related and allocates those costs to sales customers based on their forecast consumption which is the same as the current method. The midstream costs are proposed to be classified as demand related and allocated to all sales customers based on their load factor adjusted volume. This proposal follows cost causation as these costs are incurred to meet peak-day demand. This approach is the same as FEI's method of midstream cost allocation.⁷⁵ A comparison of the current method of allocating gas costs and the proposed method demonstrates that the proposed gas cost allocation will have minimal impact on residential and commercial customers' rates.⁷⁶

J. CONCLUSION

34. FEI requests that the Commission approve the FEI and Fort Nelson COSA studies set out in FEI's Application. FEI requests that the Commission determine that the methodologies used in the COSA studies are reasonable and appropriate for use in FEI's rate design and setting rates for the utility.

⁷³ Exhibit B-1, Application, p. 6-27.

⁷⁴ Exhibit B-1-1, Supplemental Filing, pp. 13-17.

⁷⁵ Exhibit B-1-1, Supplemental Filing, p. 13-18.

⁷⁶ Exhibit B-1-1, Supplemental Filing, p. 13-18 and 13-19.

PART THREE: RANGE OF REASONABLENESS

A. INTRODUCTION

35. In this Part, FEI reviews the evidence related to its proposed range of reasonableness. R:C ratios within the range of reasonableness indicate that a rate schedule is recovering its fair share of costs, and therefore provide no evidence to justify rebalancing.⁷⁷ The range of reasonableness is a guideline,⁷⁸ in that the Commission may determine that rebalancing is not required even if an R:C ratio is outside the range of reasonableness.⁷⁹ If rebalancing is determined to be appropriate, rebalancing should be to the nearest boundary of the range of reasonableness only, as the COSA results provide no evidence to justify further rebalancing.⁸⁰

36. A range of reasonableness is required because the numerous assumptions, estimations, simplifications, judgements and generalizations in the COSA study make the results uncertain. A range of reasonableness of 90 to 110 percent for the R:C ratio has been consistently used by the Commission in past rate designs for FEI. As Elenchus has opined, consistency with past practice is the most important consideration.⁸¹ The 90 to 110 percent range is endorsed as appropriate by both EES Consulting and Elenchus, and is in line with industry practice. FEI requests that the Commission approve a range of reasonableness of 90 to 110 percent for the R:C ratio, determining that this range is the appropriate guideline for rebalancing in FEI's rate design.

⁷⁷ E.g., Exhibit B-1, p. 6-32 to 6-34; Transcript Volume 5, p. 433, l. 23 – p. 434, l. 21.

⁷⁸ E.g., Exhibit B-5, BCUC-FEI IR 1.53.1.

⁷⁹ As noted by Elenchus, "R:C (or M:C) ratio is only one factor that that influence rate design results and there are other considerations (e.g. rate impact, policy concern) that will lead to the final rates." Exhibit A2-13, BCOAPO-Elenchus IR 2.11.4. Also see testimony of Ms. Tabone at Transcript Volume 5, pp. 490-491.

⁸⁰ Exhibit A2-8, CEC-Elenchus IR 1.2.2: "Rebalancing should be undertaken to move all classes that are outside the approved range to the nearest boundary"; also see Transcript Volume 5, p. 479, ll. 20-26.

⁸¹ Exhibit A2-10, Elenchus Rate Design Report, p. 35.

B. A RANGE OF REASONABLENESS IS NECESSARY

37. A range of reasonableness is a necessary and accepted industry practice in rate design given that the COSA results are not precisely accurate. A COSA study necessarily involves assumptions, estimates, simplifications, judgments and generalizations which lead to uncertainty in the results.⁸² At the SRP, Mr. Gosselin provided a detailed discussion and examples of the types of assumptions, estimates, simplifications, judgments and generalizations involved in the COSA.⁸³ For example:

- the COSA is based on a forecast,
- there are different acceptable methods of allocating demand costs,
- almost all costs are shared and there are different, acceptable methods to allocate them, and
- peak demand is based on a regression analysis using estimations, averages, and extrapolation outside the range of temperatures used in the regression analysis,⁸⁴ and
- there are different, acceptable methods of estimating peak demand.⁸⁵

38. Because of the assumptions, estimates, simplifications, judgments and generalizations performed to produce final COSA results, it is impossible to know for certain the costs that any group of customers cause.⁸⁶ Further, as Elenchus emphasized, due to the uncertainty and the validity of different methods, there is no true cost allocation result, but a range of values that could be considered the true value:

⁸² Exhibit B-1, Application, p. 6-32.

⁸³ Transcript Volume 5, pp. 414 to 423.

⁸⁴ Mr. Gosselin explained this point in detail at the SRP. Transcript Volume 5, pp. 417 to 421; Exhibit B-19, pp. 18-20.

⁸⁵ Transcript Volume 5, pp. 524 to 529.

⁸⁶ Exhibit B-11, CEC-FEI IR 1.2.2.

Given the imprecision of COSA models, which derives in part from the fact that there are multiple legitimate methods that can be used to allocate costs, each one producing a different R:C ratio, Elenchus is of the view that any R:C ratio that is within the defined range of reasonableness can be considered to be full cost recovery. An R:C ratio that is below the range is considered to indicate under-recovery of costs and any R:C ratio that is above the range indicates over-recovery of costs.

In a probabilistic situation, such as a sample survey, there is a true value that is being estimated. In the case of cost allocation there is no underlying true value that is being estimated. There are multiple possible ways of defining cost causality, each of which is equally valid, which implies that is a range of values that could each be considered to be the true value. In COSA work, rather than attempting to determine R:C ratios using multiple reasonable methods, a range of reasonableness is used.⁸⁷

39. A range of reasonableness is therefore necessary when considering the results of the COSA studies.⁸⁸

40. The accuracy of FEI's COSA results only provides a sufficient evidentiary basis to justify rebalancing if the R:C ratio falls outside of the range of reasonableness.⁸⁹ Further, because all R:C ratios within the range of reasonableness indicate that a rate schedule is recovering its fair share of costs,⁹⁰ the COSA results provide evidentiary support for rebalancing only to the nearest boundary of the range of reasonableness.⁹¹

C. COMMISSION HAS CONSISTENTLY USED A RANGE OF REASONABLENESS OF 90 TO 110 PERCENT FOR NATURAL GAS UTILITIES

41. For natural gas utilities, including FEI, the long standing Commission precedent for the range of reasonableness for the R:C ratio has been 90 percent to 110 percent.⁹² For

⁸⁷ Exhibit A2-8, CEC-Elenchus IR 1.18.4.

⁸⁸ Exhibit B-1, Application, p. 6-32.

⁸⁹ Exhibit B-11, CEC-FEI IR 1.3.2.

⁹⁰ E.g., see testimony of Ms. Tabone, Transcript Volume 5, pp. 491-492, and testimony of Mr. Todd, Transcript Volume 5, p. 515.

⁹¹ Exhibit A2-8, CEC-Elenchus IR 1.2.2; Transcript Volume 5, p. 479, ll. 20-26.

⁹² Exhibit B-1, Application, p. 6-33.

example, in Commission Order G-42-91, which was a reconsideration of the Commission's ruling on Pacific Northern Gas' 1991 Rate Design Application (Order G-23-91), the Commission recognized the subjectivity inherent in cost allocation:

The Commission is also cognizant of the considerable reliance upon judgement involved in the undertaking of a cost of service study. Although judgement is required in lesser amounts to determine the specific component of the total cost of service and functionalization of costs, significant judgement is required to classify costs between capacity, commodity and customer components. Even greater judgement is required in determining the appropriate method to allocate these costs amongst rate schedules. For example...different classes of customers impose different levels of risk on the utility, but quantifying the appropriate cost differential is not attempted in these studies. Finally, there are benefits attributable to serving certain classes of customers but these, too, have not been included as an offset against costs within the study as they are not easily quantified.⁹³

42. This reliance on judgment led the Commission to conclude:

Given the imprecision inherent in cost of service studies in general, and in particular the studies in issue, the Commission believes that as long as revenues from a particular class of service and costs allocated to that class of service do not differ by more than 10%, there is no compelling evidence to determine that the cost of service results indicate rate restructuring is required.⁹⁴

43. The Commission also accepted, as a guide to rate setting, a range of reasonableness of 90 percent to 110 percent in the FEI (formerly BC Gas) 1993 Phase B Rate Design.⁹⁵ The same range of reasonableness was used in the BC Gas 1996 Rate Design,⁹⁶ in the FEI (formerly Terasen Gas Inc.) 2001 Rate Design,⁹⁷ and in FEI's 2012 Amalgamation Application. These decisions and others relating to natural gas utilities are reviewed by FEI in response to BCUC IR 1.14.1.⁹⁸ These decisions show that the Commission has consistently judged that the

⁹³ Commission Decision and Order G-42-91, dated May 23, 1991, page. 29.

⁹⁴ Commission Decision and Order G-42-91, dated May 23, 1991, page. 29.

⁹⁵ Commission Decision and Order G-101-93, dated October 25, 1993, page 12: "In previous decisions the Commission has accepted a 10% band as reasonable."

⁹⁶ Commission Order G-98-96, dated October 7, 1996.

⁹⁷ Commission Order G-116-01, dated October 3, 2001.

⁹⁸ Exhibit B-5.

uncertainty in the COSA results warrants the use of a range of reasonableness, and that a 90 to 110 percent range is appropriate for natural gas utilities such as FEI.

44. There is no evidence that there has been any material change in circumstances that would warrant deviating from the Commission's past approvals of a 90 to 110 percent range of reasonableness. Therefore, a range of reasonableness of 90 percent to 110 percent for the R:C ratio is reasonable and appropriate for FEI.

D. RANGE OF REASONABLENESS FOR ELECTRIC UTILITIES NOT APPLICABLE DUE TO SUPERIOR DATA

45. The precedents for a range of reasonableness of 95 percent to 105 percent in the case of BC electric utilities⁹⁹ are not appropriate for natural gas utilities. In the case of BC electric utilities, there is relative certainty in load research analysis with respect to the coincident and non-coincident peak demand calculations.¹⁰⁰ The equivalent level of certainty does not exist for natural gas utilities because the equivalent load research analysis for natural gas utilities does not draw from hourly system demand data, but rather from average daily system demand data.¹⁰¹

46. Mr. Gosselin described in detail the process that FEI uses to estimate peak demand. While FEI's methods use the best data available and are consistent with industry practice,¹⁰² the estimation process results in more uncertainty in the peak demand than is the case for electric utilities. Mr. Gosselin stated:

In the case of BC Electric Utilities, there is a relative [certainty] in the load research. The equivalent level of certainty doesn't exist for the natural gas

⁹⁹ Exhibit B-1, Application, pp. 6-32 to 6-34. Commission commentary and orders related to the range of reasonableness for electric utilities are provided in FEI's response to Exhibit B-11, CEC-FEI IR 1.5.2.

¹⁰⁰ Exhibit B-1, Application, p. 6-33.

¹⁰¹ Exhibit B-1, Application, p. 6-33; Transcript Volume 5, p. 423.

¹⁰² E.g., Mr. Roger for Elenchus confirmed that utilities will estimate peak demand using a regression like FEI or load research and both methods are considered acceptable; Transcript Volume 5, p. 529.

utilities. FEI believes that there is sufficient imprecision in the allocator to warrant a range of reasonableness wider than 95-105.¹⁰³

47. Further, the peak day demand used by natural gas utilities is based on extreme weather planning conditions since natural gas demand is largely driven by temperature.¹⁰⁴ FEI, for example, plans for the coldest day in 20 years.¹⁰⁵ It is difficult to obtain data of the demand during such extreme weather conditions. Ms. Tabone, for EES Consulting, explained that electric utilities, in contrast, analyze normal weather conditions:

...on the electric side you're always looking at normal weather conditions and so you can measure that by looking at a statistical sample. Here, again what Rick was saying, you're trying to measure this 1-in-20-year occurrence, so unless you've got 20 years' worth of daily data you probably aren't going to get the loads at that peak days. So, you're still going to have to do some regression to get to that point, so it's not going to be as certain as you would have on the electric side.¹⁰⁶

48. The result is that there is less certainty associated with natural gas peak demand compared to those produced by electric utilities that use actual or forecast loads under normal weather conditions. Since peak day loads are fundamental to cost allocations for natural gas utilities, greater data uncertainty with respect to peak day loads results in greater uncertainties in COSA results.¹⁰⁷

49. Due to these differences in certainty, a wider range of reasonableness is warranted when considering the results of FEI's COSA studies in comparison to the results of COSA studies of electric utilities. Given that a 95 to 105 percent range of reasonableness is applied to electric utilities in BC, the Commission's past practice of applying a 90 to 110 percent range of reasonableness remains reasonable and appropriate for FEI today.

¹⁰³ Transcript Volume 5, p. 423.

¹⁰⁴ Exhibit B-1, Application, p. 6-33.

¹⁰⁵ Transcript Volume 5, p. 420.

¹⁰⁶ Transcript Volume 5, pp. 525-526.

¹⁰⁷ Exhibit B-1, Application, p. 6-33.

E. EES CONSULTING AND ELENCHUS BOTH AGREE THAT 90 TO 110 PERCENT IS REASONABLE AND OFTEN USED IN INDUSTRY

50. The evidence of both consultants is that a range of reasonableness of 90 to 110 percent is appropriate for FEI.

51. EES Consulting considered FEI's proposed 90 to 110 percent R:C ratio range of reasonableness to be a reasonable range.¹⁰⁸ EES Consulting states in the Executive Summary of its Report:

FEI has proposed using a 90% to 110% revenue to cost ratio range of reasonableness for setting proposed rates. We consider this to be a reasonable range for use when considering the revenue to cost ratios for FEI. While this is a broader range than what is currently accepted by the Commission for the electric utilities in B.C., it is consistent with the range previously accepted for gas utilities in the Province and the larger range is appropriate in this case. Generally, the greater the level of uncertainty that exists within the COSA, the greater the acceptable revenue to cost range should be. In this particular case, uncertainty exists due to the peak day demand allocators and the uncertainty inherent to the allocation of costs using any selected methodology.¹⁰⁹

52. EES Consulting expanded on its rationale:

While this is a broader range than what is currently accepted by the Commission for the electric utilities in B.C., it is consistent with the range previously accepted for gas utilities in the Province and the larger range is appropriate in this particular case. Anytime there is greater uncertainty in the COSA results, the resulting revenue to cost ratios are less accurate and reliable. This makes it advisable to use +/- 10% to reflect the uncertainty in the COSA. FEI COSA contains uncertainty due to several factors.

Gas utilities use peak days that reflect extreme weather planning conditions compared to the electric utilities that use actual or forecast loads under normal weather conditions. While the loads used in FEI COSA reflect the cost causation of the system, they contain less certainty than the loads used on the electric side. Because a large portion of costs are allocated on the basis of the peak day

¹⁰⁸ Exhibit B-1, Appendix 6-1, EES Report, p. 2; Exhibit B-11, CEC-FEI IR 1.6.1.

¹⁰⁹ Exhibit B-1, Appendix 6-1, EES Report, p. 2.

use per class, having uncertainty in the peak day loads used for allocation among the classes will lead to more uncertainty in the COSA results.¹¹⁰

53. Elenchus also reviewed the range of reasonableness and concluded that a range of reasonableness between 90 and 110 percent is acceptable. Elenchus stated the following in its COSA Report:

Based on Elenchus experience, revenue to cost ratios that are within a range of acceptable values are considered to indicate that the customer class is paying its fair share of costs and that there is no need to realign cost responsibility. The usual revenue to cost range of acceptable ratios that Elenchus has observed is between 0.90 and 1.10 or a narrower range of 0.95 to 1.05. A narrower range of 0.95 to 1.05 is usually used by regulators and utilities in instances when there is good load and costing data available to be used in a COSA study and the utility and regulator have had experience and history in using COSA studies in order to set rates.

Elenchus agrees with how FEI has calculated the revenue to cost ratios and margin to cost ratios results and agrees that no adjustment to rate classes' cost responsibility is required at this stage based on the R:C ratio range of reasonableness. [Emphasis added.]¹¹¹

54. At the SRP, attention was brought to Table 4 of the Elenchus Rate Design Report, showing the range of reasonableness utilized by six other natural gas utilities in Canada. There are a number of reasons why the Commission should not simply follow the practice in these other jurisdictions:

- (a) First, the survey of six jurisdictions is not comprehensive. Both Elenchus' and EES Consulting's evidence is that a range of 90 to 110 percent is acceptable.¹¹² Moreover, the Ontario Energy Board uses even wider ranges of reasonableness for electricity distributors.¹¹³

¹¹⁰ Exhibit B-1, Appendix 6-1, EES Report, p. 5.

¹¹¹ Exhibit A2-2, Elenchus COSA Report, p. 29.

¹¹² Exhibit A2-2, Elenchus COSA Report, p. 29; Exhibit B-1, Appendix 6-1, EES Report, p. 2.

¹¹³ Exhibit A2-13, BCOAPO-Elenchus IR 2.10.1.

- (b) Second, there is no evidence showing the relative certainty in the data or assumptions used in the COSA by the other utilities.¹¹⁴ It may be that the regulators in other jurisdictions have reason to be more confident in the COSA results of these other utilities. Or, it may be that regulators in other jurisdictions have exercised their judgment in a manner with which the Commission would disagree.
- (c) Third, there may be factors influencing the range of reasonableness that are not applicable to FEI. For example, as noted by Ms. Tabone for EES Consulting, ATCO has only two customer classes,¹¹⁵ whereas FEI has many. Elenchus agreed that having diversity of customer classes, as FEI does, would make it more difficult to justify differential rate treatment.¹¹⁶
- (d) Fourth, there may be circumstances of FEI that are not applicable to the utilities surveyed. For example, as noted by Elenchus, FEI has customer classes that consist of customers in different parts of the province, which could make it more difficult to justify differential rate changes.¹¹⁷ The utilities surveyed do not have similar geographical considerations as compared to FEI.
- (e) Finally, there are good reasons for the Commission to remain consistent with its own practices and past judgements. As discussed below, consistency provides rate stability, and the Commission should require some reason to change its practice.

55. Mr. Roger commented on the survey results, emphasizing the extent of uncertainty involved in the COSA and that FEI's range of reasonableness is appropriate:

¹¹⁴ Mr. Roger for Elenchus confirmed this at the SRP. Transcript Volume 5, p. 529. Also see testimony of Ms. Tabone at Transcript Volume 5, p. 480.

¹¹⁵ Transcript Volume 5, pp. 533-534.

¹¹⁶ Transcript Volume 5, p. 551.

¹¹⁷ Transcript Volume 5, p. 551.

As you are well aware, FEI uses a range of 90 to 110 percent. We did our survey of the ranges of reasonableness used elsewhere by gas utilities. Those are set out on the slide. Wider ranges are used for electricity. Saying what is correct in terms of a range of reasonableness is impossible. It is the judgement of a regulator as to what is an appropriate range. I would like to add some context to, at least, our view of what is the purpose of the range of reasonableness.

There is a lot of uncertainty. I would say the same things as FEI has said about the causes of the uncertainty. The one way of viewing the purpose of a range of reasonableness, is what level of proof do you need to say that differential rates - differential rate increases are justified? What a range of reasonableness does is says unless you're outside the range, everybody gets the same rate increase. So, in effect, it is a level -- speaking to the lawyers, it is a level of a burden of proof around saying certain classes should have a higher rate increase than other classes, or some have a lower rate increase than other classes. And the broader the range, the more stringent the test that says it's reasonable to have differential rate increases.

Our view is that to have the 90 to 110 is not unreasonable as a range – unreasonable is a range of reasonableness – because of the various factors which create imprecision and uncertainty. The mere fact -- it's all common costs means that there is a certain amount of kind of arbitrariness to the way the costs are split up. And to actually drive differential rate increases, you need a fairly strong case, if I can put it that way.¹¹⁸

56. Further, in its Rate Design Report, Elenchus emphasized the importance of consistency, saying: “The most important consideration in choosing an approach is consistency. That is, the same ratio and the same range should be used as the primary reference point on an on-going basis.”¹¹⁹ When asked in an IR if there was sufficient accuracy to justify a 95 to 105 percent range of reasonableness Elenchus responded as follows:

Unless there is reason to believe that the quality of data has improved substantively, Elenchus would suggest that there is not a compelling case for narrowing the acceptable range of revenue to cost ratios.¹²⁰

¹¹⁸ Transcript Volume 5, pp. 432-434.

¹¹⁹ Exhibit A2-10, p. 35.

¹²⁰ Exhibit A2-9, ICG-Elenchus IR 1.1.3.

57. As explained in FEI's response to BCUC-FEI Technical IR 1.6.1, and reiterated by Mr. Gosselin at the SRP, FEI's 2016 COSA is as accurate as the 1993 COSA.¹²¹ There has been no material improvement in the data to warrant a narrowing of the range.

58. Mr. Roger expanded on the benefit of consistency at the SRP, as follows:

The thought that I've thrown out is that one of the considerations is consistency, the past. And in order to break with tradition, if you want, normally you'd want a reason for that. So, I would expect, if I were the Commission, I'd say, "I'm not going to change it unless there is something wrong with what is happening, circumstances have changed, or we think, you know, given today, 95 to 105 is more reasonable." But one is not more reasonable than the other, they are just different.¹²²

59. Elenchus' views in this regard are consistent with the Commission's own determinations on when rate design should change. For instance, the Commission stated on pages 15, 17 and 18 of the 2014 FortisBC Inc. Industrial stepped and standby rate decision (Order G-67-14):

...the Panel notes that any change in rate design naturally results in some initial increase in rate instability. As such, the Panel does not see the need to change an existing rate designs unless there is a clear need to do so....

The Panel considers that before making any changes to previously approved rate design, the Panel should be satisfied that greater efficiencies or cost savings would accrue to the benefit of ratepayers overall, or that the existing rate is now outside of fairness norms from a cost causation perspective. The Panel should also be satisfied before making any changes to previously approved rate design that the magnitude of the changes to the affected parties are acceptable and that benefits in the broad public interest would result.

60. The evidence does not reveal any reason to change the Commission's approach to the range of reasonableness for FEI. There is nothing wrong with the range, and circumstances have not materially changed. The range of reasonableness consistently used by

¹²¹ Transcript Volume 5, pp. 425.

¹²² Transcript Volume 5, pp. 506-507.

the Commission in the past is still reasonable in light of the uncertainty in FEI's COSA studies and should continue to be applied.

F. R:C RATIOS ARE PREFERABLE TO M:C RATIOS

61. There is also no compelling reason to depart from the existing practice of using R:C ratios to examine the range of reasonableness.

62. FEI agrees with Elenchus' comments that either an R:C ratio or M:C ratio needs to be used as a primary guide. As stated in Elenchus' Rate Design Report, "it appears to Elenchus that as a practical consideration one ratio must be used as the primary basis for determining whether rate rebalancing is appropriate."¹²³ As the ratio will be used to guide the rebalancing of rates, one ratio must be chosen so that the rates together can be balanced to 1.0.

63. As one primary reference must be chosen, it is preferable to be consistent with past practice and continue to use the R:C ratio. The range of reasonableness convention of 90 percent to 110 percent for gas utilities in BC has been on an R:C ratio (i.e., including gas commodity and midstream costs and revenues).¹²⁴ The use of the R:C ratio is a reasonable practice, and is widely used in other jurisdictions.¹²⁵ Changing from the use of the R:C ratio to the M:C ratio would be a change in practice that could potentially result in rate instability over time for customers.

64. Further, to provide an equivalent basis for determining the need for rebalancing, the M:C ratio range should be wider than the R:C ratio range. As FEI demonstrated mathematically, for any given R:C ratio the M:C ratio will be further away from 100%.¹²⁶ This means that a wider range of reasonableness should be applied to the M:C ratio. Consistency

¹²³ Exhibit A2-10, p. 35.

¹²⁴ Exhibit B-11, CEC-FEI IR 1.60.1.

¹²⁵ Exhibit A2-10, p. 35: "the R/C is so widely accepted that it would not be inappropriate as the primary reference." Also, Exhibit A2-13, BCOAPO-Elenchus IR 2.11.4.

¹²⁶ Exhibit B-5, BCUC IR 1.15.5.

with past practice again favours maintaining a 90 to 110 percent range of reasonableness on the R:C ratio.

65. While Elenchus sees merit in the M:C ratio because it removes flow-through costs,¹²⁷ the M:C ratio's disadvantage is that it does not reflect what customers actually experience. The reality is that customers pay for the delivery, midstream and commodity cost on their bill. As stated by Mr. Gosselin:

And when considering rebalancing we must be mindful of the impact that our customers will experience. Since our customers pay for both delivery and revenue -- sorry, delivery and gas itself, using the R:C as a basis for rebalancing reflects what they'll experience. So our customers experience revenue changes, so we should be using the revenue to cost ratio when assessing rebalancing.¹²⁸

66. The Commission should consider the actual impact to customers when rebalancing rates. The use of the R:C ratio facilitates this.

67. In summary, the continued use of the R:C ratio is consistent with Commission practice. FEI submits that there is no compelling reason to change this practice, and that the R:C ratio should continue to be used for the purposes of the range of reasonableness and rebalancing of revenue responsibility.

G. CONCLUSION

68. FEI requests that the Commission find that a range of reasonableness of 90 to 110 percent using the R:C ratio is appropriate for evaluating the results of FEI's COSA. Application of this range of reasonableness means that R:C ratios within 90 to 110 percent indicate that a rate schedule is recovering its cost of service, whereas R:C ratios outside the

¹²⁷ Transcript Volume 5, p. 436.

¹²⁸ Transcript Volume 5, p. 426.

range of reasonable indicate that rebalancing of revenue responsibility may be required to the nearest boundary of the 90 to 110 percent range.¹²⁹

PART FOUR: CONCLUSION

69. FEI requests that the Commission approve FEI's COSA studies and range of reasonableness, determining that the methodologies used by FEI in its COSA studies and its proposed range of reasonableness of 90 to 110 percent of the R:C ratio are reasonable and appropriate for the purposes of FEI's rate design and setting rates for the utility.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated: September 18, 2017 ***[original signed by Christopher Bystrom]***
Christopher Bystrom
Counsel for FortisBC Energy Inc.

Dated: September 18, 2017 ***[original signed by Tariq Ahmed]***
Tariq Ahmed
Counsel for FortisBC Energy Inc.

¹²⁹ Exhibit A2-8, CEC-Elenchus IR 1.2.2; Transcript Volume 5, p. 479, ll. 20-26.