May 23, 2019

VIA E-FILING

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

BCPIAC
Public Interest Advocacy Centre

Reply to: Leigha Worth
lworth@bcpiac.com
Ph: 604-687-3034

Dear Mr. Wruck,

Our File: 7300.131

Re: FortisBC Energy Inc. and FortisBC Inc. (collectively FortisBC) Multi-Year Rate Plan Application for 2020 to 2024
BCOAPO Information Request No. 1

We represent the BC Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, and Tenant Resource and Advisory Centre, known collectively in regulatory processes as "BCOAPO et al." ("BCOAPO").

Enclosed please find BCOAPO's Information Requests No. 1 with respect to the above-noted matter.

If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,
BC PUBLIC INTEREST ADVOCACY CENTRE

Original on file signed by

Leigha Worth
Executive Director | General Counsel

Encl.

REQUESTOR NAME:	BCOAPO et al.
INFORMATION REQUEST ROUND NO:	1
TO:	FORTISBC
DATE:	MAY 23, 2019
APPLICATION NAME:	APPLICATION FOR APPROVAL OF A MULTI-YEAR RATE PLAN FOR 2020-2024

1.0 Reference: Exhibit B-1, page A-5, lines 19-22 and Footnote #1
Exhibit B-1, pages A-6 to A-7, Figures A1-1 and A1-2

1.1 Please provide schedules setting out the deviation/basis for the $285, $314 and $286 values referenced in Footnote #1 for FEI.

1.2 Please provide schedules setting out the derivation/basis for the $439, $495 and $457 values referenced in Footnote #1 for FBC.

1.3 Please explain the difference between the 2019P and 2019B values shown in Figures A1-1 and A1-2 (i.e., what do each represent?).

1.4 Please reconcile the 2019 O&M values referenced for FEI in Footnote #1 with those shown in Figure A1-1.

1.5 Please reconcile the 2019 O&M values referenced for FBC in Footnote #1 with those shown in Figure A1-2.

2.0 Reference: Exhibit B-1, page A-6, Figure A1-1, Footnote 2 for FEI, and Exhibit B-1-1, Appendix A2-1, and Appendix A3-1 O&M History (FEI)

2.1 Please confirm that the Total Gross O&M spending for the years 2013-18 inclusive shown in Appendix A2-1 and Appendix A3-1 are in nominal dollars; if unable to confirm, please explain.

2.2 Please confirm that the “real dollars” referred to on the referenced figure (A1-1) are “2019 dollars”; if unable to so confirm, please clarify which year’s dollars are real dollars.

2.3 For each year, please provide the annual factors used – and their derivation – to convert the nominal dollars for the year into real dollars for Figure A1-1.

2.4 Please provide the number of customers used to calculate O&M per customer for 2019 and indicate whether the referenced figure represents projected average number or projected year-end customers.

2.5 If the data is available, please augment Appendix A3-1 to include actuals for 2018 and projected for 2019. If it is not yet available, please indicate when the Utility expects it will be.

3.0 Reference: Exhibit B-1, page A-6, Figure A1-1, page B-32 Figure B2-1 and Footnote 48

3.1 Please reconcile the figures shown for FEI actual net O&M (real) shown in Figure A1-1 with the figures shown for FEI actual O&M (real) shown in Figure B2-1 – the differences do not appear to be entirely due to overhead capitalization.

4.0 Reference: Exhibit B-1, page A-9, Table A1-2

4.1 Please provide a table showing the actual capital spending undertaken by FEI in nominal dollars for each year 2014-2019 inclusive.

5.0 Reference: Exhibit B-1, page A-12, including Table A1-5

5.1 With respect to Table A1-5, under the "Responsive to Customer Expectations" feature please explain what is meant by cost-effective.

5.1.1 In particular, does it mean that the focus of the Fund will be on initiatives that are cost-effective from a ratepayer perspective (i.e., will reduce overall charges paid by ratepayers to the respective utilities?).

5.1.2 Will all the individual initiatives pursued using monies from this fund be "cost-effective" in their own rights from rate payer perspective?

5.2 Please explain how interested parties will be able to verify the efficacy of the utility's spending from the Clean Growth Innovation Fund ex post in order to ascertain whether the fund delivers real benefits to ratepayers.

5.3 Regarding the feature "Responsive to customer expectations," will the utilities be surveying ratepayers or do the utilities have some other method or metric to determine whether the utility has been successful in this respect?

5.4 Please provide a list of concrete examples as to how the utilities intend to be increasingly "responsive to customer expectations" or provide a reference in the evidence as to where such examples can be found.

5.5 Is it the utilities' view that the features listed in the referenced table are currently not being addressed or being addressed insufficiently?

5.6 Do the utilities regard the features listed in the referenced table as not being normally what ratepayers would expect to be the responsibility of the utility in the prudent management of its affairs? In other words, are any of the features "new" in any sense?

6.0 Reference: Exhibit B-1, page A-15, lines 4-11

6.1 Please provide specific examples of Canadian jurisdictions that have approved "targeted incentives".

6.2 Please provide relevant references for these specific examples which outline the nature of these incentives and their approvals.

7.0 Reference: Exhibit B-1-1, Appendix B-6, Tables A:B6-1 – B6-8

7.1 Please indicate which of the PBR initiatives the utilities would not have undertaken over the period 2014-19 had they been regulated under cost of service regulation for that period. If these differ for each utility, please provide separate answers to reflect the preferences of each utility. For example, as described in Table A:6-4, the utility reviewed the contract with its technical and infrastructure provider, issued an RFP, and changed its supplier. Is this not an exercise – regular review of third-party agreements – that one would expect from any prudent utility to undertake regardless of the form of regulation under which it operates?

7.2 Please confirm that all savings claimed in the referenced tables are annual savings. If unable to so confirm, please clarify.

7.3 Please confirm/correct/clarify that totaling the figures presented in the referenced tables gives the following result: Total O&M spending of approximately $2.76M, Capital spending of approximately $17.1M, and ongoing annual Savings of approximately $6.56M.

8.0 Reference: Exhibit B-1, pages B-16 to B-17 and page B-21

8.1 Using the Grand Forks Terminal Station CPCN Application as an example, please illustrate how FortisBC has increased the scope and number of stakeholders and rights holders consultations as compared to previous CPCN Applications.

9.0 Reference: Exhibit B-1, page B-30 (lines 11-21 and 26-32) and page B-32 (lines 4-10)

9.1 Does the fact that both FEI and FBC achieved O&M savings in excess of those associated with the productivity factors embedded in their respective formulae indicate that the productivity factors used in the current PBR plan were too conservative?

9.1.1 If not, please explain why not.

10.0 Reference: Exhibit B-1, page B-31, Table B2-2 and Exhibit B-1-1, Appendix B6, Tables A:B6-1 – B6.8

10.1 Is there any relationship between the information provided in Table B2-2 and the O&M savings referred to in Appendix B-6, Tables A:B6-1 – B6-8?

10.2 Please provide the actual and normalized values for ROE that FEI achieved in each year 2014-2018 inclusive and projected for 2019 (that underpins the projected 2019 O&M savings).

10.3 Please confirm that the figures in the referenced table are in nominal dollars. If unable to confirm, please clarify.

10.4 Based on Table B2-2, FEI appears to be saving $2.0M above formula in 2019. Are these savings all considered “temporary”?

11.0 Reference: Exhibit B-1, page B-31-B33
Appendix A3-1 and Appendix A3-2

11.1 Please provide a revised version of Appendix A3-1 including actual and forecast 2019 values for FortisBC Energy Inc.

11.2 Please include additional rows in the response to part one showing the adjustments made for each year to derive the “Actual” (column a) values in Table B2-2.

11.3 Please include additional rows in the response to part one showing the determination of the inflation adjusted actual O&M as set out in Figure B2-1.

11.4 Please include additional rows in the response to part one setting out the number of customers for each year and the derivation of the Total O&M per Customer (Inflation Adjusted) per Figure B2-1.

11.5 Please provide a revised version of Appendix A3-2 including actual and forecast 2019 values for FortisBC Inc.

11.6 Please include additional rows in the response to part five showing the adjustments made for each year to derive the “Actual” (column a) values in Table B2-3.

11.7 Please include additional rows in the response to part one showing the determination of the inflation adjusted actual O&M as set out in Figure B2-2.

11.8 Please include additional rows in the response to part four setting out the number of customers for each year and the derivation of the Total O&M per Customer (Inflation Adjusted) per Figure B2-2.

12.0 Reference: Exhibit B-1, pages B-34 and B-35, Table B2-4 and Figure B2-3, and Exhibit B1-1, Appendix B8-1, pages 2-7

12.1 FEI attributes the large variances in growth capital over the PBR period to unanticipated developments (change in customer mix, increased SLAs on VI) going into the PBR and to the use of historical costs for inputs along with the 50% formulaic reduction to the growth factor. Is FEI convinced that errors in customer forecast numbers were not a material driver of the growth capital variance?

12.2 Please provide a breakdown by rate class of customer numbers forecast and actual customers for each year 2014-2018 inclusive.

12.3 Please provide a revised Table 2-4 assuming the 50% growth reduction factor had not been in place in the current PBR.

13.0 Reference: Exhibit B-1-1, Appendix B8-1, pages 7-9, Table A:B8-1-4

13.1 Does FEI agree that, in general, variances from forecast in sustainment and other capital expenditures would be expected to be smaller that growth capital variances since, among other things, sustainment capital expenditures generally relate to capital that is already in rate base and for which the condition is well known?

14.0 Reference: Exhibit B-1, page B-36, Table B2-5

14.1 Please provide a revised version of the referenced table that includes pension and OPEB.

15.0 Reference: Exhibit B-1, page B-39, Tables B2-7 and B2-8

15.1 Please explain how the average annual cost for the PBR proceedings in the referenced tables was calculated.

15.2 In FEI's view, are the average annual costs of a two-year cost of service proceeding similar to the average annual costs of a one-year cost of service proceeding?

16.0 Reference: Exhibit B-1, page B-48 (lines 1-8)

16.1 Please indicate the strategic long-term initiatives FBC has underway that are currently treated outside the PBR framework and indicate how and why they are receiving this treatment.

16.2 With respect to line 7, please confirm if the reference to C3.3.7 is correct.

17.0 Reference: Exhibit B-1, Page B-53, Figure B2-6

17.1 Please provide a revised version of Figure B2-6 where for each year and metric the Figure sets out FEI's ranking relative to the total number of utilities in the sample (e.g. 3/14 would indicate that that FBC had the third best result out of 14 utilities – FEI plus its 13 member peer group).

18.0 Reference: Exhibit B-1, page B-56 (Figure B2-7)

18.1 Please provide a revised version of Figure B2-7 where for each year and metric the Figure sets out FBC's ranking relative to the total number of utilities in the sample (e.g. 3/14 would indicate that that FBC had the third best result out of 14 utilities).

19.0 Reference: Exhibit B-1, page B-69, lines 3-5

19.1 The referenced passage states that "The respondents for investor-owned utilities had a higher expectation of PBR regulation with only 11 percent choosing cost of service regulation as their expected regulatory model in ten years. Government oversight is most common among municipal utilities and co-ops."

19.1.1 Does FEI draw any inferences from the regulatory preferences of investor-owned utilities versus the regulatory preferences of municipal utilities and co-ops?

19.1.2 Is FEI aware of any studies comparing the rates at investor-owned utilities versus the rates at comparable municipal utilities and co-ops? If so, please provide details.

20.0 Reference: Exhibit B-1, pages B-70 (Table B2-9) and B-72 (lines 19-25)
Exhibit B-1, Appendix C4-2

20.1 Table B2-9 sets out the X factor used in each of the MRPs summarized. Appendix C4-2 (page 11) provides a breakdown of the X factor established by the AUC as between the TFP factor and the stretch factor. Similarly, at page 31 a discussion is provided regarding the Regie's derivation of the X factor HQD. However, a similar discussion is not provided regarding the determination/breakdown of the X factor used for Ontario Electric Distributors (Section 3). Please explain the basis for the X factors as applied to Ontario electric distributors.

21.0 Reference: Exhibit B-1, page B-80 (lines 10-23) and page B-81 (lines 1-2)

21.1 Based on the discussion in this paragraph, will "targeted incentives" only be used for initiatives that results in downward pressure on rates (i.e., a reduction in rates) through the promotion of load growth?

21.1.1 If not, please explain how the incented initiatives can be viewed as being to the "benefit of ratepayers" per page B-81.

22.0 Reference: Exhibit B-1, page C-8, lines 10-25

FortisBC discusses its true up mechanism for growth factors.

22.1 Please confirm that a true up of forecast costs or revenues to actual results transfers risk from the shareholder to the customer.

22.1.1 If confirmed, please fully explain why the introduction of a true up mechanism should not result in a reduction in the allowed return on equity or equity thickness to adjust for a change in risk allocation between shareholders and customers.

22.1.2 If not confirmed, please fully explain.

23.0 Reference: Exhibit B-1, page C-9, lines 3-11

FortisBC indicates that there is a high correlation between new attachments and capital or O&M. In stating that there is a high correlation coefficient, FortisBC implies that it has done some sort of linear regression of the relationship between costs and new attachments.

23.1 Please provide the calculation of the correlation coefficients in Excel format with formulae and links intact. In the response please provide the actual regression analysis and resulting slope and intercept.

23.2 Please provide all supporting data used to determine the correlation coefficients. In the response, please provide actual new attachments,

formula O&M and each component of formula capital for each of the last 10 years.

24.0 Reference: Exhibit B-1, page C-9, line 25 – page C-10, line 15

FortisBC discusses the "persistent underfunding of formula capital amounts." In its principle 2, FBC states:

> The MRP must provide the utility with a reasonable opportunity to recover its prudently incurred costs including a fair rate of return.

24.1 Please confirm that formula O&M did not experience a similar under-funding because formula O&M included a 50 percent reduction in the Growth Factor. If not confirmed, please fully explain.

24.2 Please fully discuss whether a reasonable opportunity to recover prudently incurred costs should be applied to each of formula O&M and each component of formula Capital separately or should be applied to each of the Fortis utilities in aggregate.

24.3 For each of the years of the prior MRP for each of FEI and FBC, please provide:

24.3.1 Formula Revenue Requirement with each component of Revenue Requirement identified.

24.3.2 Actual Revenue Requirement with each component of Revenue Requirement identified.

24.3.3 Actual utility return on equity.

24.3.4 Authorized return on equity.

24.4 Please fully discuss whether, under an MRP, the utility should trade off capital and O&M to maximize efficiency. In the response please fully discuss why or why not.

24.4.1 If yes, please explain how this might be done.

25.0 Reference: Exhibit B-1, page C-10, line 20

On line 20, FortisBC indicates it is planning on using Gross Customer Additions.

25.1 Please fully explain Gross Customer Additions and explain why Gross Customer Additions is the preferred metric.

25.2 Please provide the Gross and Net Customer Additions for each year of the prior MRP.

26.0 Reference: Exhibit B-1, page C-12, lines 16-29

FortisBC discusses the proposed ECM model, which is based on achieved ROE for the last two years of the multiyear rate plan.

26.1 Please fully explain how the FortisBC proposal for an ECM **excludes** the impact of efficiencies that were implemented in years 1-3 of the multiyear rate plan and have simply carried over to the last two years of the plan.

27.0 Reference: Exhibit B-1, page C-12, lines 30-36

FortisBC discusses an offramp based on ROE.

27.1 Please fully discuss how an offramp would be implemented if the thresholds were met. Would it be an automatic reopening of the MRP, to examine all components?

28.0 Reference: Exhibit B-1, page C-14, lines 19-29

28.1 Please provide the detailed calculations of the data in Footnote 115 in Excel format with formulae intact.

28.2 Please provide the actual and inflation adjusted O&M per customer for each of FEI and FBC for each of 2013-2018 along with the detailed calculation of each year.

28.3 On line 26, FortisBC states the O&M per customer spending is on a downward trend for each of FEI and FBC. Please fully explain why a productivity factor is not appropriate, given the historical downward trend.

29.0 Reference: Exhibit B-1, page C-16, line 1 to page C-17, line 18

FortisBC discusses increased costs related to a number of factors.

29.1 Please provide a detailed list of issues that drove costs in the last multiyear rate plan for each of FEI and FBC similar to the list included in pages C-16 and C-17.

29.2 Please provide the estimated annual O&M and Capital cost of each item listed in the response above for each year.

29.3 Please provide a list of cost reductions or efficiencies achieved in the last MRP.

30.0 Reference: Exhibit B-1, pages C-16 to C-17

30.1 Please confirm that FEI's and FBC's actual 2018 O&M costs provided sufficient resources to fund the 2018 level of activity required in each of the areas set out on pages C-16 (lines 14-38) and C-17 (lines 1-6) in order to operate the respective utilities.

30.1.1 If not confirmed, please indicate for which areas 2018 funding was inadequate to meet 2018 needs, and the resulting implications.

30.2 Please confirm that, under the proposed MRPs for FEI and FBC, the annual inflation and customer growth factors will effectively provide increased funding for these activities each year.

31.0 Reference: Exhibit B-1, pages C-19 & C-20 and Exhibit B-1-1, Appendix A3-1

13.1 FEI states that it considers its bad debt expense of $0.9M in 2018 is unusually low, claiming that on average between 2014-2018 bad debt was about $1.8M per year. Please reconcile these claims with the information provided at line number 16 of Appendix A3-1 where it appears to show that for years 2013 to 2017 inclusive, FEI's bad debt expenses were $0.778M, $1.090M, $0.755M, $0.899M, and $0.700M respectively.

32.0 Reference: Exhibit B-1, pages C-22 & C-23 including Table C2-3

32.1 Please augment the referenced table by adding a row to show the associated O&M costs for digs each year.

32.2 Please indicate where the costs for integrity digs can be found in Appendix A3-1 of Exhibit B-1-1.

32.3 Why does FEI consider a range from $2.3M to $3.2M for integrity digs over the period from 2011 to 2018 to be too large to be forecastable?

33.0 Reference: Exhibit B-1, page C-24, lines 1-6

33.1 Can FEI confirm that the reference to the IGU requiring additional integrity digs is simply to buttress its argument for keeping integrity digs out of base O&M?

34.0 Reference: Exhibit B-1, page C-26, Table C2-5, page C-28, Table C2-6

34.1 Please show how the "Base" figures in the first referenced table are transformed into the "Adjusted Base" figures in the second.

35.0 Reference: Exhibit B-1, page C-28

35.1 For each year 2014-2019 inclusive please provide a table showing FTEs for Tilbury, Mt. Hayes, and Supporting, broken down by role (e.g., maintenance, manager, etc.)

35.2 For each year, 2014-2019 inclusive, please provide the actual O&M costs recovered in respect of Tilbury, Mt. Hayes, and Supporting.

35.3 Given the large incremental costs being proposed for Tilbury, Mt. Hayes, and Supporting, is FEI convinced that reliability and safety have not been compromised due to too few FTEs?

35.4 Can FEI confirm that all incremental O&M costs will be inflated by both the inflation factor and the growth factor for the period of the proposed plan?

36.0 Reference: Exhibit B-1, page C-29, Table C2-8

36.1 Please explain why the "Connect to Gas" expenses more than doubled from 2014 to 2015.

36.2 Please explain how the Proposed 2019 amount for base “Connect to Gas” expenses was derived.

36.3 Please provide a breakdown of actual 2019 “Connect to Gas” expenses including amounts spent on “Connect to Gas,” “Natural Gas Appliance Incentives,” and “Stakeholder Engagement.”

36.4 Please explain why the “In-house resources to address customer preferences” increased by a factor of more than 2.5 from 2014 to 2016, plummeted in 2017, then appeared stable at about 5.5 times the 2014 cost in 2018 and 2019.

36.5 Please explain how the Proposed 2019 amount for base “In-house resources to address customer preferences” was calculated.

36.6 Please explain why the Proposed 2019 amount for base “In-house resources to address customer preferences” is more than eight times the actual amount spent on this line item in 2014.

36.7 Please explain how the proposed <u>incremental</u> amount for “In-house resources to address customer preferences” – which is more than three times the <u>total</u> amount spent on this line item in 2014 – was calculated and what, specifically the base and incremental amounts will be spent on.

36.8 Please explain why “Natural Gas Appliance Incentives” are not part of FEI’s DSM/Conservation programs.

37.0 Reference: Exhibit B-1, page C-36, Table C2-12

37.1 Please explain how the proposed 2019 amount – which is almost 10 times the highest amount spent in previous years – was calculated.

37.2 Please provide support for the additional incremental O&M amount which will take 2019 base O&M to almost 20 times the maximum amount that FEI has ever spent in any year on these initiatives.

38.0 Reference: Exhibit B-1 -1, Appendix B8-1, Table A:B8-1-5

38.1 For each delayed project in the referenced table, please provide the a list showing the updated versus original cost estimates.

39.0 Reference: Exhibit B-1, page C-37, Table C2-13

39.1 For each of line items in the referenced table, please explain how the 2019 Base value was determined.

40.0 Reference: Exhibit B-1, page C-37, Table C2-13, and pages C-38 to C-42

40.1 Ignoring the fact that FEI is also applying for incremental funding for Integrity Management to start off the next PBR scheme, please explain, providing sufficient details in support, why Integrity Management costs more than doubled from 2014 to 2019.

40.2 Please confirm that FEI has been in compliance with CSA Standard CSA Z662-15 continuously since 2014; if unable to confirm, please explain.

40.3 When did CSA Z662-15 become effective?

40.4 Please explain how it could be determined that a pipeline operator did not "continually improve practices" and, as such, was in contravention of CSA Z662-15.

40.5 Does FEI agree that the criterion "continually improve practices" is somewhat subjective and up to the utility's discretion?

40.6 How does FEI ensure that the changes in Integrity Management practices that it adopts lead to "improvement" as opposed to simply spending more money on the initiative?

40.7 Please provide details as to how FEI continually improved Integrity Management practices in each year over the period 2014-2019.

40.8 Does FEI not consider that improving Integrity Management is a core requirement for a regulated utility?

40.9 Can FEI confirm that "Maintaining System Infrastructure" is not a new (for 2019) utility requirement?

40.10 Given that FEI has been spending about $40M per year on "Maintaining System Infrastructure" since 2014 on, does FEI not currently employ staff to perform maintenance planning activities?

40.11 Please provide a breakdown of 2019 actual "Maintaining System Infrastructure" expenses and FTEs involved in this activity.

40.12 Please provide a breakdown of the additional $0.700M that FEI is requesting in incremental "Maintaining System Infrastructure" costs.

40.13 Please provide a breakdown of the additional $0.700M that FEI is requesting in incremental "Operations Compliance and Safety" costs.

40.14 Regarding Gas Control, does FEI agree that this is an essential gas utility activity?

40.15 Please provide the number of FTEs that FEI has employed for each year from 2014 to 2019, in performing Gas Control activities.

40.16 In FEI's view, were the resources allocated to Gas Control adequate in past years?

40.17 Please explain why gas control costs increased by about 50% from 2014 to 2019.

40.18 Regarding the CEPA Participation costs, when did FEI become a member?

40.19 Please provide the annual cost to FEI of CEPA membership fees.

40.20 Please provide a breakdown of the actual 2019 CEPA Participation costs of $0.100M.

40.21 Is the $0.165M proposed for an additional gas control employee on page C-42 not included in the Gas Control row in Table C2-13?

41.0 Reference: Exhibit B-1, page C-43

41.1 With respect to page C-43, please provide a copy of Finance Schedule 3 per FBC's Compliance Filing Order G-246-18 for the Annual Review of 2019 Rates.

41.2 If the requested schedule does not provide the derivation of the 2019 formula inflation factor (1.02382 per Table C2-14) in sufficient detail to explain why it varies from the 1.02376 value in FBC's Annual Review for 2019 Rates Application (page 17), please provide an explanation.

42.0 Reference: Exhibit B-1, page C-44

42.1 If the Corporate/Shared Services Studies impact of $0.705 M is a 2019 value (per Footnote 131), why is the impact included in the Adjusted 2018 O&M Base and then subjected to the 2019 Inflator as opposed to being included as one of the 2019 adjustments?

43.0 Reference: Exhibit B-1, pages B-33 and C-44

43.1 Please confirm that, based on Table B2-3, FBC expects to achieve O&M savings for $0.5 M in excess of the "formula savings" in 2019.

43.2 Please confirm that the proposed approach for establishing the 2019 Base O&M does not capture any of the 2019 O&M saving that are in excess of the "formula". If not confirmed, please explain why.

43.3 Please explain why the 2019 Base O&M should not be reduced by $0.5 M to account for these additional savings.

44.0 Reference: Exhibit B-1, page C-45 and Appendix A3-2

44.1 With respect to Appendix A3-2, please indicate where bad debt expense (as referenced on page C-45) is included and what the actual values are for each year 2013-2018 as well as forecast for 2019.

45.0 Reference: Exhibit B-1, page C-46
FBC 2017 RDA, Exhibit B-8, BCUC 97.1

45.1 Please update the table in BCUC 97.1 to include all of 2018 and the months in 2019 for which data is available.

46.0 Reference: Exhibit B-1, pages C-32, C-35 to C-36 and C-47

46.1 With respect to page C-47 (line 8), please confirm the reference to Section 2.4.3.2 is correct.

46.2 Page C-32 makes reference to additional in-house resources including a Digital Advisor and Communications Writer/Researcher being required at a cost of $0.200 M. Page C-35 makes reference to funding being required for an additional Digital Communications Advisor position. Is the positon referenced on page C-35 different and incremental to the position(s) referenced on page C-32?

46.2.1 If yes, please explain why.

46.2.2 If no, please confirm the $0.08 M in Table C2-15 should be $0.04 M.

47.0 Reference: Exhibit B-1, pages C-47, Table C2-16

47.1 For each of line items in Table C2-16, please explain how the 2019 Base value was determined.

48.0 Reference: ExhibitB-1, pages C-47 to C-48

48.1 Please provide a schedule that contrasts the annual values (2013-2018) for SAIDI and SAIFI for: i) FBC's overall service area and ii) the Kootenay area.

48.2 Does FBC track the reasons for outages by cause and specifically, those related to trees?

48.2.1 If not, what is the basis for claiming FBC is experiencing a high number of outages in the Kootenay area from trees falling on the conductor?

48.2.2 If yes, please provide a schedule that contrasts the annual values (2013-2018) for SAIDI and SAIFI attributable to tree/trees falling for: i) FBC's overall service area and ii) the Kootenay area.

48.3 Will the incremental funding for a qualified profession to map root rot be required for the entire MRP period?

48.3.1 If yes, why?

48.3.2 If not, for what years is required?

48.4 The inclusion of the incremental funding requirement for a qualified professional in the 2019 base means that the cost to customers will be increased each year not only by inflation but also by customer growth. Please explain why the latter increase is necessary.

49.0 Reference: Exhibit B-1, page C-48

49.1 Please explain more specifically how the $0.232 M for Generation Dam Safety will be used for (e.g., is it for additional staff and, if so, how many and what would be their roles?).

49.2 At what frequency are dam safety reviews required and, based on the number of FBC dams, how many on average would this translate into on an annual basis?

49.3 How many dam safety reviews were completed in each of the years from 2013 to the end of 2018?

49.4 How frequently are condition assessments of the penstocks required?

49.5 Is it that no condition assessments of the penstocks have been undertaken or that such assessments have been undertaken but records have not been kept?

49.6 If they are necessary, are the costs of penstock construction, upgrades or repair included in FBC's dam related CPCN applications?

49.7 Please explain whether penstock assessments are part of a dam safety review.

49.7.1 If not, please explain why it is not.

50.0 Reference: Exhibit B-1, page C-48

50.1 At what rate does the apprenticeship program need to produce Trade Administration apprentices in order to meet anticipated demand and what is the basis for the anticipated demand for such apprentices?

50.2 Please provide a schedule that sets out the number of Trade Administration apprentices in the program each year and the number of apprentices "graduating" from the program each year (2013-2018).

50.3 What is FBC's success rate at: i) retaining apprentices during the program and ii) retaining apprentices once they have completed the program?

50.4 The inclusion of the incremental funding requirement for additional apprentices in the 2019 base means that the cost to customers will be increased each year not only by inflation but also by customer growth. Please explain why the latter increase is necessary.

51.0 Reference: Exhibit B-1, pages C-40 and C-48

51.1 At page C-40 the total incremental Cyber Security cost for FEI and FBC is set out as $0.508 M with $0.450 for additional positions leaving $0.068 M for managed tools and services. At page C-48, FBC's share of the cost for managed tools and services is stated to be $0.062 M. Please explain why virtually all of the cost for managed tools and services is attributed to FBC.

52.0 Reference: Exhibit B-1, pages C-40 and C-48

52.1 Is spending on Data Analytics expected to improve work/employee efficiency at FBC and FEI?

52.1.1 If yes, please explain how.

52.1.2 What is the anticipated value (dollar or FTE savings) associated with this efficiency improvement?

52.2 How much of the incremental Data Analytics funding is for additional staff (per page C-40, line 34)? Please break down your response by utility: i.e. number for FBC and FEI respectively.

53.0 Reference: Exhibit B-1, page C-53

53.1 What is the anticipated timing for the implementation and application of the AIP tool to electric assets? If the timing is phased based on type of assets, please indicate the timing of the different phases and the types of assets to be included at each phase.

54.0 Reference: Exhibit B-1, page C-58, Tables C3-1 and C3-2

54.1 Please provide the forecasted values for each item in both of the referenced tables.

54.2 Please augment Table C3-1 by adding a column for forecasted 2019 spending.

55.0 Reference: Exhibit B-1, page C-63, Table 3-4

55.1 Please provide the forecasted values for each item in the referenced table.

56.0 Reference: Exhibit B-1, page C-64, Table 3-5

56.1 Please confirm that FEI spending on Sustainment and Other capital has never exceeded $160M prior to 2019.

57.0 Reference: Exhibit B-1, page C-64, Table C3-6

26.1 Please explain why FEI Sustainment Capital spending spiked up in 2017 and remained high thereafter.

58.0 Reference: Exhibit B-1, page C-69, Table C3-11

58.1 For each line item (row) in the referenced table, please provide actual yearly expenditures for each year 2014-2018 inclusive and projected for 2019.

59.0 Reference: Exhibit B-1, page C-71, Table C3-13

59.1 For each line item (row) in the referenced table, please provide actual yearly expenditures for each year 2014-2018 inclusive and projected for 2019.

60.0 Reference: Exhibit B-1, page C-72, Tables C3-14 and C3-15

60.1 Please explain why the Sustainment CIAC forecasted for each year 2020-2024 is less than actual 2018 and forecast 2019.

61.0 Reference: Exhibit B-1, pages A-23 and C-80

61.1 What specific determination is FBC seeking the BCUC to make regarding its capital expenditure forecast (Table C3-21)?

61.1.1 In particular, is FBC seeking approval for the proposed capital expenditures under section 44.2 of the *Utilities Commission Act*?

62.0 Reference: Exhibit B-1, pages C-82 to C-83

62.1 Were any of the four transmission growth projects set out in Table C3-23 identified in previous capital plans or long-term energy resources plans filed by FBC?

62.1.1 If yes, please provide the appropriate references and related cost forecasts.

62.1.2 If not, please explain why.

62.2 For each of the four transmission growth projects identified in Table C3-23 please describe: i) the alternatives considered and ii) the rationale for selecting the proposed project.

63.0 Reference: Exhibit B-1, pages C-83 to C-84

63.1 With respect to Table C3-24, please provide the annual spending on Small Growth Projects and Unplanned Growth Projects for each year 2013-2019.

63.2 Please explain why the forecast annual spending on Distribution-Small Growth projects over the 2020-2024 period is more than twice the average annual spending in the 2017-2019 period.

63.3 With respect to the DG Bell Feeder 4 Addition, please describe: i) the alternatives considered and ii) the rationale for selecting the proposed project.

64.0 Reference: Exhibit B-1, pages C-82 and C-84

64.1 With respect to New Connects, please provide the annual spending for each year 2013-2019.

65.0 Reference: Exhibit B-1, pages C-85 to C-86

65.1 Please provide a copy of the third party engineering inspection report that identifies the plants where concrete structure rehabilitation is required (page C-85, lines 23-24).

65.2 Please provide a timetable setting out the planned timing for addressing each of these locations and the costs attributable to each (page C-85, line 25-27).

66.0 Reference: Exhibit B-1, page C-86
FBC Annual Review for 2019 Rates, Exhibit B-1, page 56

66.1 Please provide the condition assessment report that supports the LBO Spillway Gates Refurbishment Project.

66.2 Please explain the difference between the LBO Spillway Gates Refurbishment Project (described at lines 3-8) and the Other Gates Upgrade Project for Lower Bonnington per lines 9-12).

66.2.1 Please provide the condition assessment reports that support the Other Gates Upgrade project at Lower Bonnington.

66.3 Is the Other Gates Upgrade Project for Upper Bonnington (line 11) part of the UBO Project referenced in the Annual Review for 2019 Rates Application?

66.3.1 If not, please explain the difference/relationship between the projects.

66.3.2 If not, please provide the condition assessment reports that support the Other Gates Upgrade project at Upper Bonnington.

66.4 Is the Other Gates Upgrade Project for Corra Linn (line 11) part of the UBO Project referenced in the Annual Review for 2019 Rates Application?

66.4.1 If not, please explain the difference/relationship between the projects.

66.4.2 If not, please provide the condition assessment reports that support the Other Gates Upgrade project at Corra Linn.

66.5 Please provide the condition assessment reports that support the Other Gates Upgrade Project at South Slocan.

67.0 Reference: Exhibit B-1, page C-86 (lines 21-27)

67.1 When were the “current” OHS requirements requiring guards and covers for rotating and moving parts put in place?

67.1.1 If prior to 2018, how much has FBC spent annually to meet these new requirements since they were introduced?

68.0 Reference: Exhibit B-1, page C-87

68.1 Please provide copies of any assessment reports supporting the end-of-life/obsolescence of the generating equipment/assets being replaced per lines 3-20.

69.0 Reference: Exhibit B-1, page C-88

69.1 With respect to Table C3-30, please explain the significant increase in the spending in 2022 on Other Buildings and Structures Projects.

70.0 Reference: Exhibit B-1, page C-89

70.1 Please provide the annual spending on Transmission Line Condition Assessments for each of the years 2013-2018.

70.2 Please provide the annual spending on Other Transmission Line Rehabilitation for each of the years 2013-2018.

70.3 Has the 2019 Transmission Line Condition Assessment been completed?

70.3.1 If yes, please indicate how the findings support a level of spending on Other Transmission Line Rehabilitation that is almost 83% higher than the average annual spending in 2017-2019.

70.3.2 If not, please explain the basis for the 83% increase in forecast spending on Other Transmission Line Rehabilitation over historical levels.

70.4 Given that the transmission line condition assessments that will identify the rehabilitation work that will be required in 2021 to 2024 have not yet been completed, please explain the material variation in annual spending on Other Transmission Line Rehabilitation over this period (per Table C3-32).

71.0 Reference: Exhibit B-1, pages C-47 and C-90

71.1 Is any of the planned capital spending on Transmission Right of Ways (per Table C3-33) related to addressing the ROW boundary issue noted at page C-47 with respect to the Kootenay area? If not, why not?

71.2 What percentage of FBC's total km of transmission lines are accounted for by 30 Line, 32 Line and 19 Line respectively?

72.0 Reference: Exhibit B-1, pages C-91 and C-92

72.1 Please provide the condition assessments that support the planned transformer replacements set out in Table C3-35.

73.0 Reference: Exhibit B-1, page C-92

73.1 Please clarify the scope of the Salmo Station Upgrade. Does it include both the replacement of the existing transformer and the installation of a second transformer?

73.2 Please provide the condition assessments that support: i) the decommissioning of the Ymir substation and ii) the replacement of the existing transformer at the Salmo substation.

73.3 What is the timing for the decommissioning of the Ymir substation?

73.4 What is the current capacity of the existing Salmo transformer and the current peak load on the Salmo substation?

73.5 What is the additional load that will be transferred to the Salmo substation when the Ymir substation is decommissioned?

73.6 What alternatives were considered to the current plan of decommissioning the Ymir substation and adding a second transformer at the Salmo substation?

73.6.1 Why were they rejected in favour of the proposed Project?

74.0 Reference: Exhibit B-1, page C-93

74.1 Please provide the condition assessment of the generator step-up stations on the Kootenay River hydro plants that supports the proposed 2020 spending of over $1 M and document the specific work planned as a result.

75.0 Reference: Exhibit B-1, page C-94

75.1 What are the locations of the planned Ground Grid Upgrades for 2022 and 2024 and what are the specific deficiencies that will be addressed at each location?

76.0 Reference: Exhibit B-1, page C-94

76.1 What is FBC's replacement strategy with respect to MOCBs (i.e., are they replaced upon failure, is replacement based on condition assessment, or is there some other approach)?

76.2 How many MOCBs are in FBC's "fleet" and how many will the proposed expenditures replace annually?

77.0 Reference: Exhibit B-1, pages C-94 to C-95

77.1 What are the reasons for the higher levels of spending Other Station Equipment in 2021 and 2022 (as compared to historical and post-2022 spending levels per Table C3-36)?

78.0 Reference: Exhibit B-1, page C-97

78.1 Please provide the number of porcelain cutout failures in each year over the period 2013-2018.

79.0 Reference: Exhibit B-1, page C-99

79.1 Please explain why the projected annual spending on SCADA Systems Sustainment is materially higher than historic annual levels.

80.0 Reference: Exhibit B-1, pages C-82 and C-105 to C-106

80.1 Are the Contributions in Aid of Construction ("CIAC") for New Connects (per Table C3-42) all associated with the New Connects spending set out in Table C3-22?

80.1.1 If not, please provide a schedule setting out any additional capital spending associated with the CIAC for New Connects shown in

Table C3-42 and indicate where this spending is incorporated in Section C3 of the Application.

80.2 Please indicate what category/categories of capital spending in Section C3 given rise to the CIAC related to Forced Upgrades (per Table C3-42) and indicate the gross amount of capital spending on Forced Upgrades for each year 2017-2024.

81.0 Reference: Exhibit B-1, pages C-109 to C-110 and pages C-165 to C-167 FBC's Annual Review for 2019 Rates, Exhibit B-1, pages 35-37

81.1 Please provide a schedule that sets out for each year 2014-2019 the reduction that was incorporated in the forecast Power Purchase Expense used to determine rates in order to account for potential real-time opportunities to displace PPA purchases with lower cost market purchases (similar to the $2 M incorporated for 2019 rates per page 37)

81.2 Please provide a schedule that sets out for each year 2014-2018 the actual net reduction in Power Purchase Expense (relative to forecast) as a result real-time opportunities to displace PPA purchases with lower cost market purchases.

81.3 Under FBC's proposed MRP will the forecast Power Purchase Expense used for setting rates include any reductions to account for potential real-time opportunities to displace PPA purchases with lower cost market purchases?

82.0 Reference: Exhibit B-1, pages C-111 to C-113

In Section 4.4.2, FortisBC discusses investment in a Green Future.

82.1 Please confirm that for each item in Section 4.4.2, FortisBC will include all changes in revenues, as well as costs in as treatment outside of indexed costs.

82.2 Please fully explain why investments such as NGT Fueling Stations, LNG Production costs or EV Charging stations should be funded through rates to customers, and not proposed on a standalone basis, where the costs are not included in FBC or FEI rates, and only paid for via revenues for providing the service.

82.3 Please fully explain how each of the proposed initiatives are <u>required</u> to provide safe and reliable utility service to residential, commercial, or industrial customers of FEI or FBC.

83.0 Reference: Exhibit B-1, pages C-115 & C-116

In section 4.10 FortisBC discusses exogenous factors.

83.1 Please confirm that a decision by a parent company is not an exogenous factor. If not confirmed, please fully explain.

83.2 Please fully explain how a decision of the BCUC, that is related to a FBC or FEI application is an exogenous adjustment.

84.0 Reference Exhibit B-1, page C-120

84.1 Do FBC's BCUC Levies include BCUC costs attributable to specific FBC proceedings?

84.1.1 If yes, why is it reasonable to recover over one-year BCUC levies associated with proceedings that deal with multi-year issues (e.g. COSA & RDA proceedings, LTERP proceedings, etc.)?

85.0 Reference: Exhibit B-1, pages C-128 to C-146

In Section 6 FortisBC discusses its clean growth innovation fund.

85.1 Please confirm that the main purpose of the fund is to assist FBC and FEI in meeting its obligations and expectations to minimize environmental impacts.

85.2 On page C-128, FortisBC discusses how it believes it should have a role to play in clean energy. Please fully explain why the costs of such a fund should not be paid by the utility shareholder.

85.3 Please confirm that any innovations, or other improvements or intellectual property developed or funded through the proposed fund will belong to the customers of FEI and FBC, and all future benefits or future revenues will flow through to the benefit of future customers. If not confirmed, please fully explain.

85.4 In Sections 6.3.1, 6.3.2, and 6.3.3 FortisBC discusses three case studies. Please provide a complete list of projects that FortisBC is aware of that have not resulted in tangible benefits.

85.5 Please provide a complete list of innovative technologies that FBC or FEI, or FortisBC, has developed and implemented, that were commercially successful.

86.0 Reference: Exhibit B-1, pages C-147 to C-154

In section 7, FortisBC discusses Service Quality Indices.

86.1 In Table C7-1, FortisBC provides SQIs for FEI. Please fully explain why inspection activities, and other monitoring activities are not included as SQIs. In the response please fully explain.

86.2 For each SQI with benchmarks and thresholds, please fully explain the penalty or consequence for failing to meet the stated benchmark or threshold.

87.0 Reference: Exhibit B-1, page C-150

87.1 Would it be possible for FEI to retain the Telephone Abandonment Rate while adding the Average Speed of Answer SQI?

88.0 Reference: Exhibit B-1, page C-151

88.1 For each of the following SQIs in Table C7-5 (i.e., those with a Proposed Benchmark and a Proposed Threshold where no historical data has been provided in the Application), please set out the actual annual values for each year 2014-2018:

- Emergency Response Time
- All Injury Frequency Rate
- First Contact Resolution
- Telephone Service Factor

88.2 Please explain why, for the two Safety SQIs and the Telephone Service Factor SQI, FBC has proposed no changes to either the Benchmark or the Threshold values.

89.0 Reference: Exhibit B-1, pages C-151 to C-152

89.1 Please explain why, based on past performance, 74% is now proposed as the Threshold value for the First Contact Resolution SQI?

89.2 Why has FBC not proposed an increase in the Benchmark value for the First Contact Resolution SQI?

90.0 Reference: Exhibit B-1, pages C-152

90.1 Given that the recent Billing Index SQI values have all been less than one, why is FBC proposing that the Benchmark value only be reduced to 3.0 as opposed to a lower value?

90.2 Given that the recent Billing Index SQI values have all been less than one, why is FBC proposing that the Threshold value be maintained at 5.0?

91.0 Reference: Exhibit B-1, pages C-150, C-151 and C-152 to C-153

91.1 Please explain: i) what types of calls are included in the calculation of the proposed ASA SQI (i.e., is it all calls received including those where the customer receives the information they seek from a recorded IVR message) and ii) how the value is calculated in the case of calls responded to by an IVR message versus in-person).

92.0 Reference: Exhibit B-1, pages C-155 to C-168

92.1 In Table C8-1, FortisBC discusses targeted incentives. Please provide the analysis or other research in support of the proposed incentive.

92.2 Who will pay the costs of each of the initiatives, will they be included in formula O&M and Capital?

92.3 In Table C8-2, the annual renewable gas volume target is provided for FEI.

92.3.1 Please provide the actual renewable gas volumes achieved in each of 2013-2018.

92.3.2 Please provide an indication of the plans to achieve the proposed target.

92.4 In Table C8-3, the annual natural gas for transportation consumption volume target is provided for FEI.

92.4.1 Please provide the actual annual natural gas for transportation consumption achieved in each of 2013-2018.

92.4.2 Please provide an indication of the plans to achieve the proposed target.

92.5 In Table C8-5, the annual natural gas conversion target is provided for FEI.

92.5.1 Please fully explain why the target is not an extrapolation of the data in table C8-5.

92.5.2 Please provide an indication of the plans to achieve the proposed target.

92.6 In Table C8-7, the annual emissions intensity target is provided for FEI.

92.6.1 Please confirm that FEI has achieved reductions in the order of 643-721 in the years 2013-2017 yet only proposes reductions averaging 30 as a target. If not confirmed, please fully explain.

92.7 In Section 8.3.5, FEI and FBC discuss Customer Engagement.

92.7.1 Please confirm that the examples used, such as the use of digital channels to avoid phone calls actually reduces the costs of FEI and FBC. If not confirmed, please fully explain.

92.7.2 Please fully explain why FBC and FEI shareholders should not pay for improved customer engagement in order to enhance productivity.

92.8 In Section 8.3.6, FBC discusses Growth in Electric Vehicle Transportation.

92.8.1 Please fully explain when FBC expects to propose targets.

92.8.2 Please fully explain why FBC shareholders should not pay for this initiative.

93.0 Reference: Exhibit B-1-1, Appendix C2

93.1 Please fully explain the purpose of each benchmarking report. What information and conclusions are parties to draw from each report?

93.2 Concentric, please confirm that for transmission and distribution, the costs of a utility do not significantly vary with the volume of energy shipped through the system. If not confirmed, please fully explain.

93.3 Concentric, please fully explain why measures that are based on peak demand are not included in the study.

93.4 Concentric, please confirm that ATCO Gas Distribution and Enbridge Gas Distribution have no transmission function. If not confirmed, please fully explain.

93.5 Concentric, please confirm that ATCO Electric Distribution FORTIS Alberta do not include any transmission function. If not confirmed, please fully explain.

93.6 Concentric, please explain which of ENMAX is included, ENMAX Corporation, ENMAX Power Corporation, or ENMAX Power Corporation Distribution.

93.7 Concentric, please explain which of EPCOR is included, EPCOR Utilities Inc., EPCOR Distribution and Transmission Inc. (EDTI), or EDTI Distribution.

93.8 Concentric, for each of the comparators, please provide a discussion of the geographic area the utility operates in, including climate, density, compared to FEI and FBC.

93.9 Concentric, please fully discuss how different utilities use of technology, and the tradeoff between capital and O&M was factored into the benchmark.

93.10 Concentric, please fully explain what data normalization between peers was done. In the response, please discuss the Concentric normalization approach and method used.

94.0 Reference: Exhibit B-1-1, Appendix C3

94.1 On PDF page 360 there is a Map of Canada. The map indicates that the Yukon and Northwest Territories have Electric MRPs. Please provide the utility that has an MRP and the nature of the MRP for each utility.

95.0 Reference: Exhibit B-1-1, Appendix C4-3

In Appendix C4-3, there is a discussion of the fundamentals of rate setting, but a discussion of the origins and issues with the process is missing.

95.1 Please fully discuss the original intent of price regulation of natural monopolies. In the response, please fully explain how the initial intent was to protect customers from the market power of natural monopolies.

96.0 Reference: Exhibit B-1-1, Appendix C6-1

96.1 Please provide an exhaustive list of Concentric clients.

96.2 Please identify the sponsors of the report.

96.3 Please provide a detailed discussion of the successes and failures of ratepayer-funded innovation.

96.4 Please provide a detailed discussion of how the benefits of ratepayer funded innovation were apportioned between customers and shareholders. Did customers gain access to intellectual property rights for inventions that had commercial value? Were customers compensated when innovation was successful and had commercial value?

96.5 Please confirm that customers have no way to opt out of these programs if they disagree with the way the money is spent. If not confirmed please fully explain.

97.0 Reference: Exhibit B-1, pages D-35 to D-36

97.1 Please explain how the results of the Lead-Lag Study will be used during the 2020-2024 MRP period to calculated cash working capital (i.e., will the 9.5 net lead-lag days value be applied to the total forecast expenditures for each test year (2020-2024) or will the proposed lead-lag day values for each individual revenue and expense item be applied to the forecast test year values for each and a new net lead-lag value derived for each test year?

98.0 Reference: Exhibit B-1-1, Appendix D3-2, pages 3 and 8

98.1 With respect to Table I-1, please provide the equivalent table as used to determine the approved Lead-Lag Days for each customer class as set out on page 3.

98.2 Why has the Residential Lead-Lag Days increased from 50.5 to 56.0?

98.3 In Table I-1, does the “Proportion Billed” refer to the proportion of customers or the proportion of revenue in each class?

98.3.1 If based on proportion of customers please recalculate Table I-1 using the proportion of revenue received from monthly vs. bi-monthly billing.

98.4 What initiatives, if any, does FBC have to in place to encourage customers to adopt monthly billing?

99.0 Reference: Exhibit B-1-1, Appendix D3-2, pages 4 and 8

99.1 Please confirm that Late Payment charges are effectively interest charges on overdue accounts.

99.2 Please explain why Late Payment charges (interest revenue) are included in the Lead-Lag Study when interest expense is not (per page 4).

100.0 Reference: Exhibit B-1-1, Appendix D3-2, page 11

100.1 With respect to Table III-1, please explain what “Power Purchase-Return on Capital” represents and how the Service Lead and Payment Lead values were determined.

101.0 Reference: Exhibit B-1, page D-38

Preamble: At page D-38 the Application states: "Compared to the existing Timesheet Approach, the Cost Driver Approach is more efficient to administer while providing an allocation methodology that reasonably represents the sharing of resources. A Cost Driver Approach would require minimal timesheets / journal entries to be processed, and the cost drivers would require only annual updating with a broader review of the shared services model on a longer-term basis".

101.1 Which approach is more accurate in terms of identifying the actual cost of service shared between FEI and FBC? If the Cost Driver Approach is considered more accurate please explain why.

101.2 What are the estimated efficiency gains for each of FEI and FBC as a result of adopting the Cost Driver Approach (e.g., $ savings in staff time)?

102.0 Reference: Exhibit B-1, page D-39 (Table D4-2)
Exhibit B-1-1, Appendix D4, pages 4 and 9

Preamble: Appendix D4, page 4, Footnote 4 states: "Given their specific nature, costs related to resources provided in support of Capital Projects and Other activities (Deferral – Demand Side Management) will continue to be allocated using the existing timesheet cross charge methodology. Additionally, only labour costs for the Shared Services is subject to the Cost Driver approach as non-labour expenses (i.e., travel expenses) may be charged directly to each company instead".

102.1 Do the costs set out in Table D4-2 include: i) the costs related to resources provided in support of Capital Projects and Other activities or ii) non-labour expenses as referenced in Footnote 4?

102.1.1 If yes, do the allocations shown in Table D4-2 reflect the fact that the allocation methodology for these costs has not changed?

102.1.2 IF yes, please provide a revised version of Table D4-3 that separates out those costs that will continue to be allocated using the existing timesheet cross charge methodology from those to which the new methodology will be applied.

102.1.3 If no, please reconcile this response with the fact that the total shared costs set out for FEI and FBC in Table D4-2 match the total of all shared costs for each utility as set out in Appendix D4, Table A:D4-2.

103.0 Reference: Exhibit B-1, page D-39 (Table D4-2)

103.1 Please explain why for Regulatory and Operations the split of Shared Costs between FEI and FBC is different under the current vs. proposed approach when the proposed approach also used time estimates – similar to the current approach.

104.0 Reference: Exhibit B-1, pages C-44, C-110 and D-41

104.1 Please confirm that, apart from the initial adjustment to the 2019 O&M (per page C-44) the Corporate and Shared Services Studies have no impact on the forecast O&M that will be used for rate setting for FEI and FBC over the 2020-2024 period. If not confirmed, please explain why not.

104.2 Please confirm that the Corporate and Share Services Studies will have an impact on the actual O&M costs for FEI and FBC over the 2020-2024 period and therefore impact the Earnings Sharing Mechanism calculations. If not confirmed, please explain why.

105.0 Reference: Exhibit B-1, page D-44 to D-45

105.1 Are FEI's and FBC's regulated capital structures and regulated return on equity based on FEI's/FBC's or FI's risk profile?

105.2 Is FI able to obtain equity at a lower cost than FBC or FEI would incur if they operated separately? If yes, how do FEI's and FBC's customers benefit from this ability?

106.0 Reference: Exhibit B-1, page D-45

106.1 Please provide specific examples of how/where over the past three years each of FEI and FBC have benefitted from the strategic oversight and sharing of best practices across the group of FI companies.

107.0 Reference: Exhibit B-1, pages D-43 and D-46
Exhibit B-1-1, Appendix D5, pages 13-14

107.1 Please provide schedules that set out the derivation of the 21.9% Asset Allocation factor and the 19.9% Controllable Cost Allocation factor for FortisBC Subsidiaries.

108.0 Reference: Exhibit B-1, page D-47
Exhibit B-1-1, Appendix D5, pages 15 and 16

108.1 Please provide a schedule that sets out: i) FI's total 2018 costs based on the categories used in Table 5.5 (Appendix D5); ii) the portion of each that is excluded from recovery and iii) the portion allocated to FortisBC Subsidiaries.

108.2 Please clarify whether the costs used in Tables 5.5 and 5.6 are forecast (as per the title) or actual 2018 costs.

108.2.1 If forecast costs were used, please re-do both tables using actual 2018 costs.

108.3 Are 100% of FI's Board of Directors costs included for recovery and subject to the 21.4% allocation factor?

108.3.1 If yes, please explain why since the Board of Directors is also responsible for oversight of the excluded shareholder related activities.

109.0 Reference: Exhibit B-1, pages D-48 to D-49

109.1 What is the difference between the Risk Management and Insurance services provided by FHI and those provided by FI (per page D-45)?

109.2 Do FEI and FBC have their own internal audit functions?

109.2.1 If yes, how do the services provided by these functions differ from those provided by FHI's internal audit function?

109.3 Are 100% of FHI's Board of Directors costs included for recovery from FEI, FBC and ACGS?

109.3.1 If yes, please explain why since the Board of Directors is also responsible for oversight of the excluded activities set out in Appendix D5 at pages 20-21.

110.0 Reference: Exhibit B-1, page D-50 (Table D5-3)
Exhibit B-1-1, Appendix D4, page 24 (Table 6.6)
Exhibit B-1, pages C-19 and C-44

110.1 The amounts set out in Table D5-3 as recoverable from FEI and FBC differ from those set out in Table 6.6. Please reconcile.

110.2 Is either Table D5-3 or Table 6.6 based on actual 2018 FI and FHI costs?

110.2.1 If not, please provide a schedule that sets out the allocation of actual 2018 FI and FHI costs to FBC and FEI based on the proposed methodology

110.2.2 Please provide a schedule the sets out the allocation of actual 2018 FI and FHI costs to FBC and FEI based on the currently approved methodology.

110.3 Please provide derivation of the adjustments for the change in Corporate Services allocation methodology used for FEI {($0.117) M per Table C2-1} and FBC {$0.367 M per Table C2-14)}.

111.0 Reference: Exhibit B-1, pages D-53 to D-60

In Section 6, FortisBC discusses its Capitalized Overhead Policy

111.1 Please confirm that the formula O&M and Capital are <u>after</u> the allocation of capitalized overhead. If not confirmed, please fully explain.

DEPRECIATION STUDY

112.0 Reference: Exhibit B-1, Pages D-18 to D22

Based on a reading of Sections 2.2.4.2 to 2.2.4.4 – Average life Group versus Equal Life Group, it appears there is a "report" that was prepared by FEI, FBC and/or Concentric to examine the ALG versus ELG procedure for depreciation. The information provided in the above sections appears to be a summary of the report.

On page D-16, FEI stated it analyzed two options for converting to ELG and estimated the costs and feasibility of each option. On pages D-16 and D17, FEI discusses the first option. On page D-18, FEI states that in the case of Manitoba Hydro in its 2014/15 and 2015/16 General Rate Application where the ELG procedure was proposed and that: "…expert testimony was provided supporting the two different approaches to implementing ELG. [Footnote omitted] As a result of the proceeding, Manitoba Hydro was denied its request to implement ELG for rate setting."

In estimating the impact of converting to ELG shown in Table D2-6 on page D-21, FEI provides a comparison of the ALG and ELG procedure depreciation expense.

In Section 2.2.4.4, Table D2-7, FEI includes a list of utilities using either the ALG versus the ELG procedure with a remaining life basis.

112.1 Please provide a copy of the report done by FEI, FBC and/or Concentric that appears to have been used to prepare FEI's response to a direction from the BCHPA to examine the ALG versus ELG procedure. If unable to provide, please fully explain why not.

112.2 From page D-16, please indicate and list how many companies FEI, FBC and/or Concentric examined either as an expert witness or through reviewing regulatory decisions related to those utilities primarily have regulatory approval for use of the straight line whole life or remaining life methodology (separately) and the ALG versus ELG procedure for developing depreciation rates and the subsequent depreciation expense. Please indicate for the companies that use the ELG procedure, which ones use option 1 versus 2. Please provide in table format. As part of the response, please also indicate whether the remaining life is based on an ALG or ELG remaining life calculation.

112.3 Please provide relevant excerpts from the decision related to the Manitoba Hydro 2014/15 – 2015/16 application as described at page D-18, showing the position of each of the parties involved in the application and relevant excerpts from Commission decision that denied the use of the ELG procedure.

112.4 Please explain if there is any inherent reason(s) why FEI, FBC and/or Concentric did not examine or expand its research on ELG to include any or all gas pipeline utilities and any electric distribution and transmission utilities.

112.5 For either of FEI or Concentric, please confirm that in Alberta, which primarily uses the straight-line whole life method, equal life group

procedure for most of the assets of the gas and electric distribution and transmission utilities regulated by the Alberta Utilities Commission. If unable to confirm, please fully explain why not.

112.6 For either of FEI or Concentric, please explain why there appears to be a "requirement" with the use of option 1 to do annual examinations, as noted in page D-17 to potentially use an adjustment to depreciation expense if there is a variance in forecast and actual retirements. Please also indicate if this "adjustment" is the same as or similar to the annual technical update that has been used in the past for Alberta based utilities regulated by the Alberta Utilities Commission. If this annual examination described by FEI is not the same or similar to the annual technical update used in the past for Alberta based utilities, please explain the difference between the two approaches (i.e. option 1 annual examination versus annual technical update). If the two approaches are different, please explain if FEI or Concentric examined whether a technical update approach could or should have been recommended as part of an ELG Option 1 recommendation for annual review.

112.7 Please explain why FEI and/or Concentric did not include ATCO Gas (the distribution component of ATCO Gas and Pipelines Limited and largest gas distribution utility in Alberta) in its list of companies shown in Table D2-7.

113.0 Reference: Exhibit B-1, pages D-23 to D-30; Exhibit B-1-1, Appendix D2, Section 6, Retirement Rate Analysis, commencing pdf page 1032

113.1 FEI and/or Concentric discuss the deprecation study for FBC starting page D-23 and further the retirement rate analysis in Section 6 shows the retirement analysis and visual Iowa curve reviews. Please provide all the underlying data used to construct the retirement analysis and resulting Iowa curves in Section 6. Please provide the data in a text and excel file format and include a list of the codes used by Concentric (i.e. addition code, retirement code, adjustment code, whether dollars are shown including or excluding "cents", etc.). Please provide the information in CD format.

113.2 Please indicate if FEI, FBC and/or concentric conducted either a full or partial (of any size) Causes of Retirement Study to help Concentric determine from an objective perspective the reason or cause why assets have been retired in the past. These reasons could include wear and tear, technical obsolescence, acts of nature, municipal and/or government requirements. If study was done, please provide a copy of it. If not, please explain why not.

113.3 Please indicate if FEI, FBC or Concentric examined any retirements used for the retirement analysis shown in Section 6 because they appeared to be unusually large or non-recurring and were believed to be unusual or extraordinary. If there was an examination, please provide a copy of the study and/or results including copies of emails and paper discussions between FEI, FBC and Concentric and whether that resulted in certain retirements being excluded from the depreciation study. If there was no examination, please indicate why not and what criteria, if any, would be

used by FEI, FBC and/or Concentric to determine if certain retirements should be considered unusual or extraordinary and excluded from a retirement analysis. Please include comments on whether one-time large events (i.e. retirement amounts that are relatively large) that are not expected to recur on a regular basis.

113.4 As part of any analysis conducted on the retirements prior to examining the results of the retirement analysis, please explain if FEI, FBC and/or Concentric would have examined retirements caused by wildfires, floods, tornadoes and other acts of nature should be examined and possibly excluded from the depreciation analysis. If not, please explain why not.

113.5 Please explain why there only appears to be one type of placement and experience band analysis conducted for each of the asset accounts. That is, why were different sizes of placement band analysis conducted? Why were there not different sizes of experience bands examined other than what appears to be full depth experience bands.

114.0 Reference: Exhibit B-1-1, Appendix D2-2, Section 3.2.2, page 3-3, pdf page 1013 and Section 10, Estimation of Net Salvage, page 10-1, pdf page 1190

114.1 Please provide a copy of all the historical net salvage data used by FEI, FBC and/or Concentric for each asset account in excel format. The information should be provided on CD.

114.2 Please explain if FEI, FBC and/or Concentric examined any net salvage or related retirement entries used for the net salvage analysis because they appeared to be unusually large or non-recurring and were believed to be unusual or extraordinary. If there was an examination, please provide a copy of the study and/or results including copies of emails and paper discussions between FEI, FBC and Concentric and whether that resulted in certain net salvage or related net salvage entries being excluded from the net salvage study. If there was no examination, please indicate why not and what criteria, if any, would be used by FEI, FBC and/or Concentric to determine if certain net salvage and related retirement should be considered unusual or extraordinary and excluded from a net salvage analysis. Please include comments on whether one-time large events (i.e. net salvage amounts that are relatively large) that are not expected to recur on a regular basis. Please include comments on how FEI, FBC and/or Concentric handled net salvage entries with no corresponding retirement entries in the same year or very large net salvage percentages as a result of not all retirement entries being included in the same year.

114.3 Please explain how FEI, FBC and/or Concentric examined re-use net salvage. As part of the response in part (a) and (b), please separately show entries that would have included re-use net salvage. Please also provide a copy of the accounting treatment for re-use net salvage as applied by FEI and FBC.

114.4 Please provide a copy of FEI and FBC's accounting treatment for retired items sold to third parties and whether the proceeds are always credited or debited to the accumulated depreciation account (versus some

Revenue account) and indicate if there are instances where the proceeds for sale of retired assets are shown as Revenue, what the specific entries were for each year and asset account and the amount of the revenue.

115.0 Reference: Exhibit B-1-1, Appendix D2, FEI Depreciation Study, Page 3-3, pdf page 766; Account 443.05-LNG Plant – Equipment – Mt. Hayes

On page 3-3 of the Depreciation Study for FEI, with respect to the net salvage for Account 443.05, Concentric states in the last paragraph: "As there have been no recorded retirement, there has not been any recorded cost of removal or gross salvage expenditures. Consequently, Concentric is not recommending a change from the approved negative 20 percent salvage rate at this time."

115.1 Please indicate why the net salvage recommended by Concentric for Account 443.05 should not be set at 0% given the lack of any net salvage or retirement data instead of the negative 20% being proposed. If the response is that it is the same as that approved last time, please provide all information related to the approval of the negative 20% from the last depreciation study.

116.0 Reference: Exhibit B-1-1, Appendix D2, FEI Depreciation Study, Pages 3-3 to 3-4 pdf pages 766 – 767; Account 448.20-LNG Plant – Pre-Treatment

On page 3-4 of the Depreciation Study for FEI, with respect to Account 448.20, Concentric states in the last paragraph discussing the net salvage proposed: "As there have been no recorded retirement, there has not been any recorded cost of removal or gross salvage expenditures. Consequently, Concentric is not recommending a change from the approved negative 10 percent salvage rate at this time."

116.1 Please indicate why the net salvage recommended by Concentric for Account 448.20 should not be set at 0% given the lack of any net salvage or retirement data instead of the negative 10% being proposed. If the response is that it is the same as that approved last time, please provide all information related to the approval of the negative 10% from the last depreciation study.

117.0 Reference: Exhibit B-1-1, Appendix D2, FEI Depreciation Study, Pages 3-4 and 3-5 pdf pages 767-768; Account 448.30-LNG Plant – Liquification Equipment

On page 3-5 of the Depreciation Study for FEI, with respect to Account 448.30, Concentric states in the last paragraph discussing the net salvage proposed: "As there have been no recorded cost of removal or gross salvage expenditures. Consequently, Concentric is not recommending a change from the approved negative 20 percent salvage rate at this time."

117.1 Please indicate why the net salvage recommended by Concentric for Account 448.20 should not be set at 0% given the lack of any net salvage or retirement data instead of the negative 20% being proposed. If the

response is that it is the same as that approved last time, please provide all information related to the approval of the negative 20% from the last depreciation study.

118.0 Reference: Exhibit B-1-1, Appendix D2, FEI Depreciation Study, Pages 3-13 to 3-14 pdf pages 776 – 777; Account 478.10-Distribution Plant – Meters

On page 3-14 of the Depreciation Study for FEI, with respect to Account 478.10, Concentric states in the last paragraph discussing the net salvage proposed: "This study recommends maintaining no net salvage estimate. Inclusion of data from the last three years shows a trend to higher positive net salvage rates. The last ten three-year rolling bands are both more positive than one percent, as are the last ten five-year rolling bands. The historical net salvage rate is one percent. Peer utilities have estimates ranging from zero to five percent. Concentric views that it would be reasonable to maintain no net salvage estimate at this time, however, this account requires careful monitoring in the future."

118.1 Please indicate why the net salvage recommended by Concentric for Account 478.10 should not be set at some percentage greater than 0% such as 1% or 2% given the historical indications for FEI are greater than 0% and the peer analysis is between 0% and 5% (with 0% being the lower bound of the range).

119.0 Reference: Exhibit B-1, page D-29, Table D2-12 Net Salvage Rates by Asset Class for FBC

Table D2-12 shows the 2014 net salvage percentages and the proposed 2017 net salvage percentages. FBC has not provided any detail about the proposed 2017 proposed net salvage percentages.

119.1 Please provide all justification for the proposed 2017 net Salvage rates for FBC shown in Table D2-12. Please include the historical net salvage (gross salvage and cost of removal) and corresponding retirements by year for each asset account in the table; copies of all correspondence, notes and emails between FBC and Concentric. Please also include Concentric's peer analysis for each asset account and the weighting, either qualitative or quantitative, of each of the historical analysis, FBC operational and management views and peer analysis in forming Concentric's recommended 2017 net salvage percentages.

120.0 Reference: BCUC Information Requests – 107.3 and 107.4; Exhibit B-1, Page C-80 of Application

BCUC Information requests 107.3 and 107.4 request information requests on the impact of the AMI Major Project program

120.1 Please explain if FEI and/or FBC are proposing approval of depreciation rates for AMI for incorporation into FEI and/or FBC's depreciation expense in the event that AMI devices and infrastructure are installed and operating prior to FEI and/or FBC's next rate application and/or next depreciation study.

121.0 Reference: Exhibit B-1-1

121.1 Please provide a copy of all correspondence including but not limited to notes, minutes, records of discussion and emails between FEI, FBC and Concentric where staff of FEI and/or FBC provide operational and management views on the lives and net salvage expectations for each account included in the depreciation study. Please also include any correspondence from and to Concentric related to the above that provides further context in how Concentric came to its various conclusions regarding depreciable lives and net salvage in terms of the weight Concentric used from the FEI and/or FBC operational and management views