FORTIS BC™

Diane Roy
Vice President, Regulatory Affairs

Gas Regulatory Affairs Correspondence
Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence
Email: electricity.regulatory.affairs@fortisbc.com

FortisBC
16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: (604) 576-7349
Cell: (604) 908-2790
Fax: (604) 576-7074
www.fortisbc.com

April 6, 2022

Industrial Customers Group
c/o Bennett Jones LLP
2200 – 1055 West Hastings Street
Vancouver, BC V6E 2E9

Attention: Mr. David Bursey

Dear Mr. Bursey:

Re: British Columbia Utilities Commission (BCUC) – 2022 Generic Cost of Capital Proceeding – Project No. 1599176

FortisBC Energy Inc. and FortisBC Inc. (collectively FortisBC) Response to the Industrial Customers Group (ICG) Information Request (IR) No. 1 on FortisBC Evidence

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On January 18, 2021, BCUC initiated the proceeding referenced above. In accordance with the regulatory timetable established in BCUC Order G-288-21 for the review of FortisBC's Evidence, FortisBC filed its Evidence on January 31, 2022. FortisBC respectfully submits the attached response to ICG IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

on behalf of FORTISBC

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary
Registered Parties

1. Reference: Exhibit B1-8, p. 1 and p. 7

FortisBC seeks:

- For FEI, approval of a capital structure consisting of 45 percent common equity and 55 percent debt, and a return on common equity of 10.1 percent.
- For FBC, approval of a capital structure of 40 percent common equity and 60 percent debt, and a return on common equity of 10.0 percent

1.1 Please confirm, assuming the FortisBC application is approved, the equity/debt ratio and the ROE for FEI will exceed the equity/debt ratio and the ROE for FBC for the first time.

Response:

Confirmed.

1.2 Please identify changes, if any, to the FortisBC recommendations and reasons found in Exhibit B8-1, Section 10, p. 62 as compared to FortisBC recommendations and reasons in the 2013 proceeding?

Response:

FortisBC assumes that the question is referring to Exhibit B1-8, Section 10 regarding the triggers for future proceedings. FortisBC's proposal in this proceeding regarding the use of a trigger mechanism is that periodic cost of capital proceedings that are conducted every three to five years is the best approach to ensure that the authorized return remains appropriate for regulated utilities, including those in BC. This is consistent with the 2013 proceeding where FortisBC submitted that it would "prefer to have the allowed ROE and capital structure set through a traditional process and remain constant between the periodic (three to five year) formal reviews, subject to events occurring that bring the results out of alignment with the FRS, which could result in an unscheduled full review process."

1.3 Please comment on the merits of a finding in this proceeding that the time between periodic reviews contemplated in Exhibit B8-1, Section 10, p. 62 should not exceed five years.

Response:

FortisBC does not believe that a fixed deadline of five years since the last cost of capital decision for filing a full new cost of capital application is necessary as there might be general agreement among all stakeholders that the existing cost of capital remains appropriate. However, FortisBC believes that it would be appropriate to re-visit the need for a new cost of capital proceeding periodically, and FortisBC recognize that cost of capital has generally been considered for FEI every five years.

1.4 Please calculate a FBC ROE for 2022 using the ROE of 9.15% based on Order G-129-16 and G-47-14 by applying the Automatic Adjustment Mechanism (AAM) approved by Order G-75-13 and using current long Canada bond yields and assuming the 3.8% threshold does not apply?

Response:

Concentric provides the following response:

The ROE has been calculated in accordance with the formula parameters that the BCUC set out in Order L-53-13 as indicated below.

$$ROE_t = 8.75\% + 0.50 \times (LCBF_t - 3.80\%) + 0.50 \times (UtilBondSpread_t - 1.342\%)$$

Where:

LCBF is the average of ${}_{10}CBF_{3,t}$ and ${}_{10}CBF_{12,t}$ and average yield spread between ${}_{30}CB$ and ${}_{10}CB$

${}_{10}CBF_{3,t}$ 3- month forecast of 10-year Canada Bond Forecast	Use the same period as in the pre-2010 AAM. The 10-year Canada Bond Yield at the end of February, 2014 according to *Consensus Forecast* published in November 2013 from Consensus Economics Inc.
${}_{10}CBF_{12,t}$ 12-month forecast of 10-year Canada Bond Forecast	Use the same period as in the pre-2010 AAM. The 10-year Canada Bond Yield at the end of November, 2014 according to *Consensus Forecast* published in November 2013 from Consensus Economics Inc.
BaseUtilBondSpread Base A-rated Utility Bond Yield Spread	1.342% based on Concentric's recommendation.
$UtilBondSpread_t$ A-rated Utility Bond Yield Spread over 30 year GOC yield	Difference between average yield of 30 year A-rated Utility bond index Bloomberg Series C29530Y and average yield of 30 year Government of Canada bonds Cansim Series V39056 published by the Bank of Canada, for all trading days in October, 2013.
${}_{30}CB$	Average yields of 30-year bonds as reported by the Bank of Canada for all trading days in October, 2013 (Cansim Series V39056).
${}_{10}CB$	Average yields of 10-year bonds as reported by the Bank of Canada for all trading days in October, 2013 (Cansim Series V39055).
AAM trigger	The AAM formula will be triggered if, in the month of October 2013, a daily yield of ${}_{30}CB$ reaches or exceeds 3.80 percent.
ROE_t	Allowed ROE rounded to two decimal places.

Note that the ROE was set for the benchmark utility at 8.75% in Order G-129-16 and Order G-75-13. The Order G-47-14 established a 40 bps ROE premium over the benchmark ROE. When applying the two-factor formula as described above, to the benchmark ROE of 8.75%, the result is 8.18%. Adding the 40 bps premium results in an ROE for FBC of 8.58%. Calculations were based on the March 2022 Consensus Forecast Survey and daily bond yield data for February 2022.

Calculations are set out in Attachment 1.4.

1.5 Please calculate an ROE for 2022 for FBC by applying the single variable model used by the Commission prior to 2009 and using current long Canada bond yields?

Response:

Concentric provides the following response:

The ROE for 2022 by applying the single variable model used by the Commission prior to 2009 results in a benchmark ROE of 7.06%. Adding the approved equity premium for FBC to that result produces an ROE of 7.46%. The ROE was calculated in accordance with the methodology set out below:

Calculation Of Allowed 2009 Rate Of Return On Common Equity
For A Low-Risk Benchmark Utility
(Per Commission Order G-35-94,
Amended by Order G-80-99, Order G-109-01 and Order G-14-06)

A forecast of long-term Canada bonds is developed based on the Consensus Economics forecast of 10-year bonds (step 1) and the observed spread between 10- and 30-year bonds over a defined period (step 2). This establishes a forecast yield for long Canada bonds (step 3).

1.	Ten Year Canada Bond Yield – end of February, 2009 (Consensus Economics, November 2008 Consensus Forecast)	3.7%
	Ten Year Canada Bond Yield – end of November, 2009 (Consensus Economics, November 2008 Consensus Forecast)	4.0%
	Average of 3 and 12 Month Forecasts	3.85%
2.	Add average yield spread between 10-year and 30-year bonds as reported by the Bank of Canada for all trading days in October, 2008.	0.50%
3.	Equals forecast yield on long-term Canada bonds	4.35%

As per Commission Order G-14-06, the approved benchmark return on equity (ROE) is 9.145 percent assuming a 30-year long Canada bond yield of 5.25 percent. Where the forecast yield is greater or less than 5.25 percent, a sliding scale adjustment raises or lowers the benchmark ROE by 75 percent of the change in the forecast yield on long-term Canada Bonds (step 4). The unrounded allowed ROE in percentage terms is rounded to the nearest 2 decimal places (step 5).

4.	Unrounded allowed ROE based on sliding scale adjustment: 9.145 – (0.75 * (5.25 – 4.35))	8.470%
5.	Allowed ROE	8.47%

Calculations are set out in Attachment 1.5.

1.6 Please also provide the 10 and 30-year long Canada bond yields as of September of each year from 2009 to 2020 and calculate the spreads between the 10-year and 30-year long Canada bond yields?

Response:

Concentric provides the following response:

Please refer to Attachment 1.6.

1.7 Please comment on the effects of the COVID-19 pandemic on equity valuations, including whether equity return expectations have changed due to the pandemic?

Response:

Concentric provides the following response:

Please see Mr. Coyne's report at pages 29-31 for a discussion of equity valuations for regulated utilities. In particular, equity valuations have increased due to the low interest rate environment, but those valuations are not considered sustainable for utilities and are expected to decline as monetary policy is normalized by central banks and as long-term interest rates increase. Equity risk has increased for regulated utilities as demonstrated by higher beta coefficients in the CAPM, which suggests higher return expectations for utility investors. Mr. Coyne does not attribute this shift in utility risk to the pandemic, it is coincident with other more structural risk factors, such as the need to respond to the Energy Transition and greater uncertainty regarding future growth prospects.

1.8 Please calculate the January 1, 2022 rate increase with an equity component of 38%?

Response:

FortisBC observes that the BCUC must set rates according to the FRS, without considering the rate impacts in the manner contemplated in the question. Nevertheless, the requested information for FBC is as follows:

- The January 1, 2022 rate increase with an equity component of 38 percent as opposed to 40 percent would have been 2.56 percent.

In calculating the above hypothetical rate increase for 2022, FBC assumed no changes to the ROE or the long-term debt rate and ratio. The reduced equity component was replaced by short-term debt at the approved rate for 2022. As discussed in the evidence, FBC's credit metrics are already under pressure with most of its financial metrics consistent with a non-investment grade credit. A decrease of FBC's equity thickness to 38 percent will further deteriorate FBC's already weak financial metrics and increase the risk of a downgrade which would have ramifications for

FBC's ability to issue debt on reasonable terms and pricing; offsetting the positive impact of any short-term rate relief.

2. Reference: Exhibit B1-8-1, Appendix A, p. 49 (BCUC IR 23)

> …the risk has materialized with the Osoyoos Indian Band's notification to FBC of its discussions with a third party regarding the development of an Indigenous Utility for its business park, which is currently served by FBC.

2.1 Please comment on whether a purchase of FBC assets by BC Hydro or an Indigenous Utility would require FBC consent?

Response:

Please refer to the response to BCUC IR1 23.2.

2.2 Please comment on whether FBC considers the purchase of FBC assets by BC Hydro or an Indigenous Utility a business risk or a business opportunity?

Response:

Whether a sale of FBC's assets represents a business risk or an opportunity depends on the nature of the transaction, and the risk or opportunity associated with an asset purchase by BC Hydro or an Indigenous Utility are not the same. FBC would not entertain a transaction with BC Hydro unless the terms were favourable to FBC and its customers.

In regard to a purchase by an Indigenous utility, as discussed in the response to BCUC IR1 23.2, the terms and conditions under which a sale of FBC's assets would occur are uncertain. Therefore, the risks and opportunities to FBC and its customers, including the impact on FBC's revenues or the potential for incremental costs arising from the duplication of utility infrastructure, are unclear. However, on balance and as mentioned in the preamble, this additional uncertainty represents a risk to FBC as it can result in reduced rate base and revenue.

3. Reference: Exhibit B1-8-1, Appendix B, p.16 (BCUC IR 29.1)

This elevated risk is based on the evolving nature of the Crown's relationship with Indigenous groups, developments in reconciliation in Canada, significantly increased expectations among Indigenous groups, and legal claims related to Aboriginal rights and title.

3.1 Please provide a list of capital projects in the past two years that incorporated Indigenous knowledge in the assessment of project alternatives?

Response:

FortisBC has a long history of working with Indigenous groups and has used, and continues to use, this knowledge to help guide the development of its capital projects. Therefore, the large majority of projects incorporate some form of Indigenous knowledge. Recent examples of these projects include the Eagle Mountain to Woodfibre Gas Pipeline Project, Okanagan Capacity Upgrade Project, and the Kelowna Bulk Transformer Addition Project.

3.2 Please provide a list of capital projects in the past two years that involved legal claims related to Aboriginal rights and title?

Response:

While FEI and FBC have not been a party to litigation involving legal claims related to Aboriginal rights and title in the past two years, Aboriginal rights and title claims have been asserted by Indigenous groups in relation to many capital projects, including the following:

- Okanagan Capacity Upgrade Project;
- Eagle Mountain to Woodfibre Gas Pipeline Project;
- Tilbury Liquefied Natural Gas (LNG) Storage Expansion (TLSE) Project;
- Inland Gas Upgrades; and
- Kelowna Bulk Transformer Addition Project.

Please also refer to the responses to BCOAPO IR1 6.1 and 13.1.

4. Reference: Exhibit B1-8-1, Appendix B (BCUC IR 30.4)

> …FBC is at a price disadvantage when competing for heating load against natural gas, and that disadvantage is greater for it than for BC Hydro.

4.1 Assuming a FBC customer with electric heating will achieve greater savings than a BC Hydro customer with electric heating that changes to natural gas heating, please explain how the difference in savings achieved will be relevant to the FBC customer's choice of service provider?

Response:

The difference in the cost of heating between FBC and BC Hydro versus natural gas is not a factor for a customer located in the common FBC/FEI service area. The discussion on page 23 of Appendix B was intended to highlight the relative risk between FBC and BC Hydro when comparing the cost of heating between the options of electricity and natural gas.

5. Reference: B1-8-1, Appendix B, p. 29 and p. 30

eligible Industrial customers can also discontinue taking service from FBC by building generation to serve some or all of the load, purchasing electricity on the open market or taking service from BC Hdyro through its OATT.

… only requires a customer to provide timely notice to FBC of termination of service.

FortisBC faces risk associated with being highly dependent on single large customers in only two industries—forestry and cryptocurrency mining.

5.1 Please provide the total energy load of the forestry sector and the total energy load of cryptocurrency mining in 2013 and 2021?

Response:

A portion of this response is confidential and has been redacted pursuant to Section 18 of the BCUC's Rules of Practice and Procedure regarding confidential documents as set out in Order G-15-19. The redaction is necessary to maintain confidentiality over customer information that FortisBC does not have permission to disclose, and which may negatively impact customers if it were publicly disclosed. Given the private nature of the information, FortisBC submits that only the BCUC should have access to the unredacted confidential version.

The following table provides the total energy load of the cryptocurrency mining and forestry sectors in 2013 and 2021.

	Cryptocurrency Mining Load (GWh)	Forestry Load (GWh)
2013	[redacted]	147.2
2021		140.0

5.2 Please provide the number of notices FBC has received related to termination of service of industrial loads since 2013.

Response:

FBC has not received notice of termination since 2013 from any industrial customers eligible to receive commodity supply from a third party.

6. Reference: Exhibit B1-8-1 (BCUC IR 32 and 33.2.1)

Also, FBC continues to face demand risk in its Wholesale and Industrial customer segments.

6.1 Please comment on whether FBC rates to Wholesale customer are based on the embedded cost of FBC infrastructure, including generation, and whether Wholesale customers that take service under the OATT will pay market prices for generation?

Response:

FBC's Wholesale rates are based on the cost to serve, as are all of the embedded cost rates contained in the electric tariff. A Wholesale customer taking service under the OATT may pay market rates for power, but may also pay whatever rates it was able to negotiate with a commodity supplier. Third-party supply is not restricted to wholesale markets.

6.2 Please discuss whether a FBC industrial customer that has invested in self-generation is required to meet all or part of its industrial load with available self-generation before purchasing power from FBC?

Response:

An FBC industrial customer is not required to meet all or part of its industrial load with available self-generation before purchasing power from FBC. However, as a result of previous BCUC determinations, primarily with reference to the 2009 BC Hydro PPA Decision[1], all self-generating customers within the FBC service territory currently take service on a "net-of-load" basis. This means that prior to being able to sell any portion of the output of its generation facilities, the customer must first meet its own load on a dynamic hourly basis using its self-generation output. Customers are not permitted to serve any portion of load with power purchased from FBC at any time that they are also selling power.

[1] In the matter of An Application by British Columbia Hydro and Power Authority to Amend Section 2.1 of Rate Schedule 3808 ("RS 3808") Power Purchase Agreement. This Decision modified the PPA between FBC and BC Hydro such that FBC could not purchase power from BC Hydro at any time an FBC customer was selling power that was not in excess if its requirements on an hourly basis.

7. Reference: B1-8-1, Appendix B, p. 5 and p.23, Figure B6-4 and Figure B7-11

> In addition, higher electricity rates can discourage residential customers from using electricity for space heating and water heating which can affect FBC's market share and use per customer. Further, FBC's rate competitiveness risk compared to BC Hydro is similar to the 2013 levels but is trending higher. As compared to 2013, FBC's rate competitiveness relative to natural gas is similar…
>
> FBC is currently at a price-related disadvantage to natural gas.

7.1 Please provide a price comparison of natural gas versus electricity at the time of the 2009 and 2013 proceedings and now?

Response:

Figure B6-4 in Appendix B (to Exhibit B1-8-1) shows the 2013 and 2022 price premium for electricity over gas, at 53 percent and 50 percent, respectively. Using the same assumptions as for Figure B6-4, the price premium for 2009 was 24 percent.

7.2 Please provide the capture rates for new construction of heating loads in 2009, 2013 and 2022?

Response:

FBC does not track capture rates for new construction of heating loads and so is unable to answer this question. However, FBC does have information relating to the end-use market share of electricity. As discussed in Section 7.4 of Appendix B, FBC's latest residential end-use study indicates that FBC's end-use market share of electricity for space heating has remained constant and for water heating has increased slightly since 2009. It also indicates that FBC expects an increase in its electricity market share over the longer term as the penetration of heat pumps increases, thereby improving FBC's market share risk from 2013 and current levels.

7.3 Please compare the FEI and FBC business risks related to energy prices in 2009, 2013 and now?

Response:

The 2009 proceeding was mainly focused on FEI's business risk and cost of capital and FBC did not file any relative or standalone risk analysis evidence in that proceeding.

In the 2014 Stage 2 GCOC proceeding, FBC compared its business risk with FEI. The BCUC 2014 decision in that proceeding agreed with FBC that FBC's price risk is higher than FEI:

> The Commission Panel finds that the evidence supports FBC facing additional risk due to competitive pricing factors when compared with the Benchmark. The primary reason for this is the fact that relative to the price of electricity, natural gas is less expensive, which is important in that the service areas of FBC and FEI overlap to a large degree (Exhibit B1-72, Appendix A, p. 19). The Panel notes that this was not contested by any of the parties.

In the current proceeding, both FBC and FEI have filed their standalone business risk evidence. For FBC, Energy Price risk is composed of three considerations: power supply cost, competition with electricity, and competition with natural gas. Table B1-2 in Appendix B shows FBC's assessment of the relative level of risk between 2013 and 2022 for these three considerations as higher, higher, and lower, respectively. In the case of FEI, Energy Price risk is composed of factors related to commodity price, commodity price volatility, and price competitiveness and carbon tax. All of these factors were assessed as higher than the previous examination, which for FEI was 2016. Energy Price risk is therefore generally higher for both utilities as compared to the previous assessment, with only the price risk related to a direct comparison between FBC and FEI yielding a lower risk for FBC. Nevertheless, considering the BCUC's above-mentioned comments and, given the fact that FBC's rates continue to be at a disadvantage relative to both FEI and BC Hydro, FBC believes that its relative overall price risk continues to be higher than that of FEI, although, with increases in carbon tax, this risk differential is expected to decrease in coming years.

7.4 Please provide evidence, if any, that either wholesale customers or industrial customers are considering alternative energy sources?

Response:

FBC is aware that both the municipalities of Summerland and Penticton are actively considering displacing FBC power with alternative energy sources as evidenced by materials at the following links:

https://www.summerland.ca/your-city-hall/climate-action/integrated-solar-project.

https://www.penticton.ca/sites/default/files/uploads/meetings/agendas/2020-01-07%20Regular%20Agenda%20Package.pdf – starting at page 32.

7.5 Please provide evidence, if any, that any customer has elected to purchase from BC Hydro at lower rates? If any, please provide the street name(s) of such customers?

Response:

Please refer to the response to ICG IR1 4.1. The purpose of this portion of evidence is not to assert that current FBC customers, other than those with such rights as Eligible Customers under the Access Principles Settlement Agreement, are able to choose electricity suppliers.

7.6 Please provide a comparison, with appropriate efficiency assumptions, of the current levelized cost to residential and commercial customers of natural gas versus electricity for an average space and water heating load?

Response:

Table A6-3 in FEI's business risk evidence, shown below, provides the total annualized cost differential between gas and electric space heating (heat pump and electric baseboard) and water heating applications.

	Space Heating (Gas Furnace)		Water Heating (Gas vs Electric)
	vs Heat Pump	vs Baseboard	
Difference in capital costs	**($3,000)**	**$8,800**	**$1,250**
Annual payments for recovery of capital costs	($257)	$753	$137
Difference in maintenance costs per year	$0	$100	$0
Total costs per year to pay off difference in capital cost	**($257)**	**$853**	**$137**
Energy consumption (GJ)	38	38	22
Difference in capital and maintenance costs between gas and electric Equipment ($/GJ)	**($6.8)**	**$22.4**	**$6.2**

For more information regarding the underlying assumptions, please refer to the Section 6.3.4 of Appendix A to the evidence.

The cost of space heating and domestic hot water for commercial customers varies significantly across building archetypes, building vintages, climates zones, and rate classes. FBC has not completed a comprehensive analysis to compare the costs of natural gas and electricity across all customer segments and it does not have the necessary cost estimates for commercial customers.

7.7 Please comment on whether the relative price of natural gas and electricity in 2009 as compared to now has increased or decreased FBC's business risks since 2009?

Response:

Using the parameters behind Figure B6-4, the premium for electric heat over gas heat was 24 percent in 2009, and now sits at 50 percent. By this measure, FBC's risk associated with the relative price of natural gas and electricity has increased from 2009.

7.8 Please comment on whether the change in the relative price of natural gas and electricity in 2013 to now has increased or decreased FBC's business risks since 2013?

Response:

FBC's assessment remains as stated in its evidence, Appendix B, page 20:

> FBC also assesses that, its rate competitiveness relative to natural gas is similar to 2013; however, given expected increases to natural gas and carbon tax rates, FBC expects that its rate competitiveness relative to natural gas will improve in the following years.

7.9 Please provide the share of the residential and commercial total loads attributed to space and water heating load?

Response:

According to the 2021 FBC Conservation Potential Review, FBC's share of total load for electric space and water heating is shown in the table below:

Sector	Residential	Commercial
Electric Space Heating	21%	2.6%
Electric Domestic Hot Water Heating	11%	2.2%
Total	**33%**	**4.8%**

7.10 Please comment on whether the primary competition for residential and commercial space and water heating load is natural gas, given current natural gas prices?

Response:

Electricity and natural gas remain the two dominant energy sources for space and water heating. In areas where both are available, these are the options primarily in competition with each other when the decision to select a heating source is made.

7.11 Please comment on whether competition for residential and commercial space and water heating load is an important determinant of FBC's overall business risk?

Response:

Competition for residential and commercial space and water heating load is a component of Energy Price Risk that FBC has assessed as being a lower risk than in 2013. For the Energy Price Risk category itself, FBC has assessed it as representing a similar risk as in 2013. As a sub-component of a risk category that is not increasing, competition with natural gas is not a significant driver of change to FBC's overall business risk in 2022.

8. Reference: B1-8-1, Appendix B, p. 6 and p. 51 (BCUC IR 36.4)

There is uncertainty caused by the BCUC's decision to consider a more generic approach to deferral account financing treatment.

FBC has assessed its overall regulatory risk as higher than what was assessed in the 2013 proceeding, with certain risk factors increasing and others being similar.

8.1 Please provide any commentary from independent agencies regarding Order G-110-12 dated August 15, 2012 and Order G-202-15 dated December 14, 2015?

Response:

The two orders referenced relate to the following proceedings:

- Order G-110-12 dated August 15, 2012 – FBC's Application for the 2012-2013 Revenue Requirements and Review of 2021 Integrated System Plan; and
- Order G-202-15 dated December 14, 2015 – FBC's Annual Review of 2016 Rates.

With respect to Order G-110-12, DBRS provided the following commentary in its 2013 credit rating report for FBC:

> **2012–2013 Revenue Requirements Application (2012–2013 RRA), 2012–2013 Capital Expenditure Plan (CEP) and the Integrated System Plan (ISP)**
>
> - In August 2012, the BCUC issued its decision on FortisBC's 2012–2013 RRA, 2012–2013 CEP and ISP.
> - The decision included an approved mid-year rate base of approximately \$1,112 million for 2012 and \$1,173 million for 2013.
> - FortisBC had requested, and the BCUC approved, the interim refundable 1.5% customer rate increase, effective January 1, 2012 (as approved by the BCUC in November 2011), be maintained for the remainder of 2012. The difference between the final approved increase in 2012 customer rates of 0.6% and the interim increase in customer rates of 1.5% has been approved for deferral as regulatory liability in 2012, to be used in 2013 to reduce the increase in customer rates to 4.2%, effective January 1, 2013.
> - The Company's rates reflected an allowed ROE of 9.90% for 2012 and 2013 with an equity component of capital structure of 40% (unchanged from 2011). However, this is pending the outcome of the GCOC Proceeding, which may affect 2013 rates.
> - In addition, the BCUC approved deferral accounts and flow-through treatment for variances between actual electricity revenue and power purchase costs and those forecasted in determining customer electricity rates. However, the flow-through treatment for interest expense was denied.

With respect to the same order, Moody's provided the following commentary in its 2013 credit rating report for FBC:

> We note that there have been some occasions for regulatory challenge. For example, in August 2012, the BCUC objected to FBC's proposed rate increases for 2012 and 2013, directed FBC to cut its capital expenditure program by $10.5 million. Aside from the reduction in capex, the BCUC demanded a reduction in labor costs by $250,000 and indicated that FBC increase its productivity by integrating more common functions among the group of FortisBC utilities. The BCUC approved a continuation of various deferral accounts related to power purchases, revenues, and pension costs with the notable exception of short and long-term interest rates.
>
> Despite this added challenge and interaction for FBC, we maintain a view that the Canadian framework provides an above average regulatory environment where rate concerns are settled in a more cooperative atmosphere than some US states. However, further contention in rate proceedings would weaken the support of this view.

With respect to Order G-202-15, DBRS provided the following commentary in its 2016 credit rating report for FBC:

> In December 2015, the BCUC issued its decision on FBC's 2016 rates. The decision determined an average rate base of approximately $1,286 million in 2016 and a rate increase of 2.96% over 2015 rates. The decision approved the Company's application to begin collecting removal costs as a component of depreciation on an accrual basis, effective January 1, 2016, on a prospective basis, with the actual removal costs incurred to be drawn down against the accrual balance.

FBC was unable to find any commentary from Moody's regarding Order G-202-15.

8.2 Please identify FBC deferral accounts that increase FBC business risks? If any, please explain why?

Response:

To clarify, FBC has not indicated that any of its deferral accounts increases its business risk. Rather, FBC's business risk evidence states that a more generic approach to deferral account financing treatment is a cause of regulatory uncertainty and risk. Please refer to the response to BCUC IR1 36.2.

8.3 Please identify any changes in FBC deferral accounts since the 2009 proceeding and the 2013 proceeding?

Response:

The 2009 cost of capital proceeding was initiated by FEI to review its allowed ROE and capital structure. FBC did not file any detailed evidence in that proceeding to assess its business risk relative to the Benchmark Utility. FBC's approach to comparing its current business risk with the 2013 proceeding is appropriate because that was the last time FBC's business risk was assessed by the BCUC.

FBC provided a listing of its significant deferral accounts in Appendix D-7.2, showing that, compared to 2012 (the year in which the 2013 proceeding evidence was based), there has been no significant change in deferral account coverage. Please also refer to Attachment 8.3 for a listing of FBC deferral accounts utilized in each of 2009, 2013 and 2021.

9. Reference: B1-8-1, Appendix B, p. 52

Overall, FBC believes that the risks associated with the MRP are comparable to the risks identified for its 2013 cost of service revenue requirement model.

9.1 Please file Exhibit B-8, ICG IR 5.5 and the referenced RCIA IR from the 2022 Annual Review Proceeding.

Response:

The following are the responses to ICG IR1 5.5 and RCIA IR1 4.3 from FBC's 2022 Annual Review Proceeding:

FBC Response to ICG IR1 5.5:

5.5 Please compare the union labour rate increases experienced by FBC in 2020 and 2021 with the BC-AWE indices from 2020 and 2021.

Response:

Please see the table below comparing the FBC union labour rate increases to the BC-AWE indices for 2020 and 2021.

	2020	2021
IBEW	2.000%	2.000%
MoveUP	2.000%	2.000%
MoveUP CS	1.500%	1.500%
BC AWE	2.881%	5.745%

Please refer to the response to RCIA IR1 4.3 for a discussion of the BC-AWE index in comparison to FBC's union labour rate increases.

FBC Response to RCIA IR1 4.3:

4.3 Please confirm that a 6.532% increase is not representative of the change in labour costs that FBC will experience in 2022(?). If not confirmed, please provide FBC's forecast change in labour costs, together with the source and derivation of your answer.

Response:

While FBC acknowledges that the current AWE trend may not be reflective of the wage increases specifically being experienced by FBC, FBC expects that over time the higher AWE trend will reverse as the labour impacts from the COVID-19 pandemic lessen, and that the near term increases observed in the AWE will be offset in subsequent years.

As shown in the summary below of 2016 to 2022 CPI and AWE data, both CPI and AWE can fluctuate on a yearly basis. These yearly changes may be different than what FBC actually experiences in a given year. For AWE, excluding 2021 and 2022, the AWE cumulative average yearly increases from 2016 to 2020 (i.e., about 2 percent average) are generally consistent with a 2 percent average wage increase.

Description	2016	2017	2018	2019	2020	2021	2022	Average
CPI	0.980%	1.627%	1.979%	2.345%	2.692%	1.596%	1.281%	1.786%
AWE	2.050%	1.250%	1.473%	2.646%	2.881%	5.745%	6.532%	3.225%

The 2022 BC-AWE used in the Application is based on the latest data from Statistics Canada and remains a valid and objective measure of the economy-wide labour inflation in BC. FBC believes that there is no evidentiary basis on which to deviate from the approved method for calculating the inflation factor for 2022.

Further, the I-Factor used for determining FBC's index-based O&M funding consists of both the AWE for labour and the CPI for non-labour. While the AWE may seem high, the CPI used for the 2022 formula O&M may be low and not necessarily reflecting the inflationary pressures FBC faces in 2022 for its non-labour expenditures. A recent news release from Statistics Canada (reproduced below) reports the August 2021 CPI at about 4 percent, indicative of potential inflationary increases in the near term and possibly into 2022[1]. In contrast, the calculated CPI for 2022 in the Application is 1.281 percent.

9.2 Please file Exhibit B-8, ICG IR 5.6 from the 2022 Annual Review Proceeding with the addition of the "year over year formula increase (%)" from 2013.

Response:

The following is FBC's response to ICG IR1 5.6 from FBC's 2022 Annual Review Proceeding which includes the Year-over-Year Formula Increase (%) for 2020 to 2022:

5.6 Please provide in table format the Formula driven O&M percentage increases from the first year of the MRP Plan to 2022, and include in the table the line items identified in response to ICG IR No. 1, 6.1 of the Annual Review for 2020 and 2021 rates with a "year over year formula %" increase line item for each year?

Response:

Please refer to the table below for the information requested:

Line	Particular	2020	2021	2022	Reference
1	Base Unit Cost O&M ($/Customer)	412	422	437	2020: Schedule 20, Line 2; 2021 & 2022: Prev Yr, Line 12
2					
3	CPI	2.692%	1.596%	1.281%	Schedule 3, Line 2
4	AWE	2.881%	5.745%	6.532%	Schedule 3, Line 3
5	Labour Split				
6	Non Labour	38.000%	38.000%	37.000%	Schedule 3, Line 5
7	Labour	62.000%	62.000%	63.000%	Schedule 3, Line 6
8	Inflation Factor for Costs	2.809%	4.168%	4.589%	(Line 3 x Line 6) + (Line 4 x Line 7)
9	Productivity Factor	-0.500%	-0.500%	-0.500%	G-166-20
10	Net Inflation Factor for Costs	2.309%	3.668%	4.089%	Line 8 + Line 9
11					
12	Current Year Unit Cost O&M ($/Customer)	422	437	455	Line 1 x (1 + Line 10)
13					
14	Average Customer Forecast - Rate Setting Purposes	141,594	142,473	145,378	Schedule 3, Line 22
15					
16	Inflation-Indexed O&M before prior year true-up ($000s)	59,752	62,261	66,147	Line 12 x Line 14 / 1000
17	Average Customer O&M True-up ($000s)	-	-	53	Schedule 20, Line 10
18	Inflation-Indexed O&M ($000s)	59,752	62,261	66,200	Line 16 + Line 17
19					
20	Year over year formula increase ($000s)	3,671	2,508	3,939	2020: Line 18 - 2019 formula O&M of $56,081; 2021 & 2022: Line 18: Curr Yr - Prev Yr
21	Year over year formula Increase (%)	6.547%	4.198%	6.327%	Current Yr, Line 20 / Previous Yr, Line 18

FBC provides the Year-over-Year Formula Increase (%) for 2014 to 2019 in the following table in a format similar to FBC's response to ICG IR1 5.6 from the 2022 Annual Review (re-produced above). However, the formula O&M from 2014 to 2019 is not comparable to the formula O&M from 2020 to 2022. The escalation factors for the 2014 to 2019 formula O&M, which were approved as part of the 2014-2019 PBR Plan Decision and Order G-139-14, are different from the escalation factors approved as part of the current MRP and reflected FBC's circumstances at that time. For instance, in 2014 FBC was coming out of two years of cost of service-based rate-making and the BCUC determined that FBC should be able to achieve a greater level of productivity savings during the 2014-2019 PBR Plan as a result. Thus, the BCUC directed that FBC include an X-Factor of 1.03 percent. In comparison, for the 2020-2024 MRP, FBC's Base O&M was established with the goal of "doing more with the same" in acknowledgement that the productivity savings achieved over the 2014-2019 PBR Plan term have already been reflected in O&M. As a result, FBC's X-Factor for the 2020-2024 MRP was reduced to 0.5 percent and FBC's Base O&M was adjusted to include incremental funding of approximately $4.351 million, as approved by Order G-166-20.

Line	Particular	2013	2014	2015	2016	2017	2018	2019	Reference
1	CPI		0.473%	0.879%	0.980%	1.627%	1.979%	2.345%	G-246-18, Schedule 3, Line 2
2	AWE		2.277%	1.646%	2.050%	1.250%	1.473%	2.646%	G-246-18, Schedule 3, Line 3
3	Labour Split								
4	Non Labour		45.000%	45.000%	45.000%	45.000%	45.000%	45.000%	G-246-18, Schedule 3, Line 4
5	Labour		55.000%	55.000%	55.000%	55.000%	55.000%	55.000%	G-246-18, Schedule 3, Line 5
6	Inflation Factor for Costs		1.460%	1.301%	1.569%	1.420%	1.701%	2.511%	(Line 1 x Line 4) + (Line 2 x Line 5)
7	Productivity Factor		-1.030%	-1.030%	-1.030%	-1.030%	-1.030%	-1.030%	G-139-14
8	Net Inflation Factor for Costs		0.430%	0.271%	0.539%	0.390%	0.671%	1.481%	Line 6 + Line 7
9									
10	Customer Growth Factor		0.327%	0.181%	0.613%	0.494%	0.629%	0.888%	G-139-14 (50% of Average Customer Growth)
11	Net Inflation Factor with Customer Growth		100.758%	100.452%	101.155%	100.886%	101.304%	102.382%	(1 + Line 8) x (1 + Line 10)
12									
13	Inflation -Indexed O&M ($000s)	52,349	52,746	52,984	53,596	54,071	54,776	56,081	2013: G-246-18, Sch 20, Line 4; 2014-2019: Prev Yr x Line 11
14									
15	Year over year formula increase ($000s)		397	238	612	475	705	1,305	Line 13: Curr Yr - Prev Yr
16	Year over year formula Increase (%)		0.758%	0.451%	1.155%	0.886%	1.304%	2.382%	Current Yr, Line 15 / Previous Yr, Line 13

FBC also notes that the 2013 O&M was approved as part of the 2012-2013 Revenue Requirement Application by Order G-110-12 and was not calculated based on formula, thus there is no Year-over-Year Formula Increase for 2013 O&M.

9.3 Please provide a description of the methodology for determining capital costs in the MRP and the 2013 cost of service revenue model?

Response:

The methodology for determining capital expenditures in the MRP (2020 to 2024) and in 2013 (as part of the 2012-2013 RRA) are similar. Both are based on a forecast approach with projects identified and expected to be required at the time the forecasts were developed.

9.4 Please comment on whether FBC applied for the change in methodology described in the previous question because it considered the methodology used in the 2013 cost of service revenue model to be unfair?

Response:

As discussed in the response to ICG IR1 9.3, the capital expenditures in both the 2013 cost of service revenue model (as part of the 2012-2013 RRA) and in the 2020-2024 MRP were based on a forecast approach. The only difference between how the two forecasts were developed is that the 2013 capital expenditure forecast was part of a 20-year Long Term Capital Plan while the 2020 to 2024 capital expenditure forecasts were part of a 5-year forecast. FBC does not believe the approach used for forecasting capital expenditures was unfair in the 2012-2013 RRA or in the 2020-2024 MRP application. Both were developed based on FBC’s expected requirements for delivering electricity safely and reliably and in consideration of the age and condition of the assets at that time.

9.5 Please provide the average annual total capital costs for the first three years of the MRP and the 2013 cost of service model?

Response:

Please refer to the table below for the total capital expenditures for 2013, and the average annual capital expenditures for 2020 to 2022 (first three years of the current MRP), including CPCNs. Please note the 2021 Actuals are preliminary results as the FBC 2021 Annual Report is not yet available at the time of filing this information request.

	2013 Actual	2020 Actual	2021 Actual	2022 Approved
Total Gross Capital Expenditures ($millions)	105.185	115.209	119.694	102.541
Average (2020 to 2022)				112.481

9.6 Please provide a table comparing actual to approved ROE since 2002?

Response:

Please refer to the following table which contains the actual and approved ROE since 2002 for FBC.

FBC - ROE

	Allowed	Actual Pre-ESM	Actual Post-ESM
	(a)	(b)	(c)
2002	9.53%	7.64%	8.24%
2003	9.82%	10.66%	10.88%
2004	9.55%	11.67%	10.70%
2005	9.43%	9.98%	9.88%
2006	9.20%	10.69%	9.94%
2007	8.77%	9.83%	9.23%
2008	9.02%	9.64%	9.28%
2009	8.87%	10.00%	9.41%
2010	9.90%	9.55%	9.65%
2011	9.90%	11.33%	10.67%
2012 [1]	9.90%	10.52%	-
2013 [1]	9.15%	10.21%	-
2014	9.15%	9.29%	9.22%
2015	9.15%	9.35%	9.26%
2016	9.15%	9.52%	9.38%
2017	9.15%	9.41%	9.31%
2018	9.15%	9.32%	9.29%
2019	9.15%	9.15%	9.18%
2020	9.15%	9.46%	9.30%

Notes:

[1] Post-ESM not applicable as no Earnings Sharing Mechanism was approved in 2012 or 2013.

Attachment 1.4

REFER TO LIVE SPREADSHEET MODEL

Provided in electronic format only

(accessible by opening the Attachments Tab in Adobe)

Attachment 1.5

REFER TO LIVE SPREADSHEET MODEL

Provided in electronic format only

(accessible by opening the Attachments Tab in Adobe)

Attachment 1.6

REFER TO LIVE SPREADSHEET MODEL

Provided in electronic format only

(accessible by opening the Attachments Tab in Adobe)

Attachment 8.3

FBC Deferral Account Changes

	2009	2013	2021
Margin Related			
Power Purchase Expense Variance		X	
Revenue Variance		X	
Generic Cost of Capital (GCOC) Stage 1 Revenue Requirements Impact		X	
Energy Policy			
Demand Side Management	X	X	X
On-Bill Financing (OBF) Participant Loans		X	X
On-Bill Financing (OBF) Pilot Program		X	
Non-Controllable			
Post Retirement Benefits	X		
Prepaid Pension Costs	X		
Pension & Other Post Employment Benefit (OPEB) Variance		X	X
Prepaid Pension Costs and OPEB Liability		X	X
US GAAP Pension and OPEB Transitional Obligation		X	X
2013 Pension Amendment		X	
Preliminary and Investigative			
Preliminary and Investigative Charges	X	X	X
Kelowna Bulk Transformer Capacity Addition (KBTCA) Project		X	
Corra Linn Spillway Concrete & Spill Gate Rehab CPCN		X	
CPCN Projects Preliminary Engineering			X
Regulatory Compliance and Application Costs			
2008 Resource Plan Update	X		
2008 System Development Plan Update	X		
2009 COSA & RDA	X		
2009 Resource Plan Update	X		
2009 Revenue Requirements	X		
2010 Revenue Requirements	X		
2011-2013 Integrated System Plan	X		
BC Hydro Waneta Transaction Application	X		
Terasen Gas ROE Application	X		
2011 Revenue Requirement Application Costs		X	
2012 - 2013 Revenue Requirements and 2012 Integrated System Plan		X	
2012 Integrated System Plan – Engineering		X	
2014 - 2018 Capital Expenditure Plan		X	
2014 - 2018 Performance Based Ratemaking (PBR) Application		X	
BC Hydro Application for PPA with FBC		X	
BCUC Generic Cost of Capital Proceeding		X	
BCUC Inquiry into the MRS Program		X	
City of Kelowna Acquisition Legal and Regulatory Costs		X	
Cost of Service and Rate Design Application		X	
Kettle Valley Expenditure Review		X	
Residential Inclining Block Rate & Industrial Stepped Rate Application		X	
Transmission Customer Rate Design		X	
2016 Long Term Electric Resource Plan			X
2017 Rate Design Application			X
2019-2022 Multi-Year DSM Expenditure Schedule			X
2020 Cost of Service Analysis			X
2020-2024 Multi-Year Rate Plan Application			X
2021 Generic Cost of Capital Proceeding			X
2021 Long-Term Electric Resource Plan			X
Annual Reviews for 2020-2024 Rates			X
BCUC Initiated-Inquiry Costs			X
Tariff Applications			X

Other			
Deferred Debt Issue Costs	X	X	X
Revenue Protection	X	X	
Right of Way Encroachment Litigation	X	X	
Right of Way Reclamation (Pine Beetle Kill)	X	X	
2008 Incentive	X		
2009 Incentive	X		
Automated Meter Reading Feasibility Study	X		
BC Hydro Amendment to 3808 (PPA Proceedings)	X		
DSM Study	X		
International Financial Reporting Standards	X		
Joint Pole Use Audit 2008	X		
NERC / MRC Set Up Cost	X		
PLP Computer Software	X		
PLP Deferred Pension Credit	X		
PLP Settlement Costs	X		
Renew BCH Power Purchase Agreement	X		
Section 5 Provincial Transmission Inquiry	X		
Trail Office Lease Costs	X		
Trail Office Rental to SD#20	X		
2011 Flow-Through and ROE Sharing Mechanism Adjustments		X	
2012 Deferred Revenue		X	
2012 MRS Audit		X	
Advanced Metering Infrastructure Project		X	X
City of Kelowna Acquisition Customer Benefit		X	
Harmonized Sales Tax Removal/Provincial Sales Tax Implementation		X	
Implementation of New Rate Structures		X	
Irrigation Rate Payer Group Consultation and Load Research		X	
Joint Pole Use Audit 2013		X	
Kettle Valley		X	
Kettle Valley Site Expansion		X	
Kootenay Long Term Facility Strategy		X	
MRS 2012 -2013 Incremental O&M Expense		X	
MRS Implementation		X	
Negotiation of new PPA between BC Hydro and FBC		X	
Princeton Light and Power Deferred Pension Credit		X	
Section 71 Filing (Waneta Expansion Power Purchase Agreement)		X	
US GAAP Conversion Costs		X	
MRP Earnings Sharing Account			X
2018 Joint Pole Use Audit			X
2018-2019 Revenue Surplus			X
2021 Forecast Cost of Removal Revenue Deficiency			X
BCUC Levies Variance Account			X
COVID-19 Customer Recovery Fund			X
EV Charging Stations Rate Design and Tariff Application			X
Flowthrough Account			X
Indigenous Relations Agreement (Huth Substation)			X
MRS 2021 Audit			X