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September 26, 2023

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

Attention: Patrick Wruck, Commission Secretary

Dear Patrick Wruck:

Re: FortisBC Inc. (FBC)

2024 Annual Review of Rates (Application) – Project No. 1599549

Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 1

On August 4, 2023, FBC filed the Application referenced above. In accordance with the amended regulatory timetable established in BCUC Order G-249-23 for the review of the Application, FBC respectfully submits the attached response to BCUC IR No. 1.

For convenience and efficiency, FBC has occasionally provided an internet address for referenced reports instead of attaching lengthy documents to its IR responses. FBC intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Sarah Walsh

Attachments

cc (email only): Registered Interveners

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A. FORMULA DRIVERS

1.0 Reference: FORMULA DRIVERS

Exhibit B-2 (Application), Section 2.2, p. 12; FortisBC Inc. (FBC) 2023 Annual Review of Rates Proceeding (FBC 2023 Annual Review), Exhibit B-2, Section 2.2, p. 11; FBC 2022 Annual Review of Rates Proceeding (FBC 2022 Annual Review), Exhibit B-2, Section 2.2, p. 8

Inflation Factor Calculation Summary

On page 12 of the Application, FBC provides Table 2-1 showing the Inflation Factor (I-Factor) Calculation, using a labour and non-labour weighting of 57 percent and 43 percent, respectively.

On page 11 of the FBC 2023 Annual Review application, FBC provided Table 2-1 showing the I-Factor Calculation, using a labour and non-labour weighting of 60 percent and 40 percent, respectively.

On page 8 of the FBC 2022 Annual Review application, FBC provided Table 2-1 showing the I-Factor Calculation, using a labour and non-labour weighting of 63 percent and 37 percent respectively.

1.1 Please discuss the drivers of the shift in non-labour and labour weighting from 40 percent and 60 percent, respectively, in the FBC 2023 Annual Review Application, to 43 percent and 57 percent, respectively in the current Application. As part of the response, please provide the rationale (e.g. cost drivers) for the overall increase in non-labour weighting since the FBC 2022 Annual Review application.

1.1.1 Please explain whether FBC expects the trend in the increase in non-labour weighting to persist beyond 2024. If so, why. If not, why not.

Response:

A main driver of the change in the weightings for 2024 (which are based on the 2022 Actual labour vs. non-labour split) is related to lower pension and OPEB costs in 2022 compared to 2021.[1] All else equal, lower pension and OPEB costs will result in lower labour O&M.

In any given year, the weightings of labour and non-labour in FBC's O&M costs reflect the Company's mix of resources required to meet its business needs. Changes in priorities, work activities and costs from year to year can influence the mix of labour and non-labour resources used, which then affects the labour and non-labour weightings.

While FBC does not anticipate significant changes in the weightings, the mix of labour and non-labour can fluctuate over time as evidenced during the recent PBR Plan term. From 2014 to 2019, the labour and non-labour weightings varied within a range of 57 percent labour (43 percent non-labour) in 2017 to 64 percent labour (36 percent non-labour) in 2014.

Although the labour and non-labour weightings may fluctuate from year to year, the weightings used in this Application are generally consistent with the historical weightings. FBC also notes that it was directed by the BCUC as part of the MRP Decision and Order G-166-20 to adjust the labour and non-labour weightings each year based on the most recent completed year of actuals.

[1] The 2022 Actual pension and OPEB cost was $(1.716) million compared to $0.775 million in 2021, with the brackets indicating an offset to O&M expense. Thus, the overall decrease in Pension and OPEB O&M in 2022 was $2.491 million.

B. LOAD FORECAST AND REVENUE AT EXISTING RATES

2.0 Reference: LOAD FORECAST AND REVENUE AT EXISTING RATES

Exhibit B-2, Section 3.3, Table 3-1, pp. 16–17, Appendix A3, p. 6; FBC 2023 Annual Review, Exhibit B-2, Section 3.3, p. 16

Demand Side Management (DSM) Savings

By Decision and Order G-371-22 dated December 16, 2022, the British Columbia Utilities Commission (BCUC) accepted FBC's DSM Expenditure Schedule for 2023 to 2027 as filed in that application (2023–2027 DSM Plan).

On page 6 of Appendix A3 to the Application, FBC states: "The forecast of DSM savings is consistent with the Company's approved 2019-2022 DSM Plan. "

On page 16 of the Application, FBC states: "FBC forecasts the DSM savings that are incremental to the DSM savings that are already embedded in historical loads up to and including 2022."

On page 17 of the Application, FBC provides Table 3-1 showing a breakdown of its forecast incremental DSM savings in Gigawatt Hours (GWh):

Line No.	Description	DSM 2024
1	Residential	(9.1)
2	Commercial	(22.3)
3	Wholesale	(7.6)
4	Industrial	(13.5)
5	Lighting	(0.2)
6	Irrigation	(0.2)
7	Net	(52.9)
8	Losses	(4.3)
9	Gross Load	(57.2)

On page 16 of the FBC 2023 Annual Review application, FBC estimated incremental 2023 DSM savings of 16.2 GWh for the industrial load.

2.1 Please explain why FBC estimated 2024 DSM savings based on the Company's approved 2019-2022 DSM Plan as opposed to the recently approved 2023-2027 DSM Plan.

<u>Response:</u>

The reference to the 2019-2022 DSM Expenditures Plan on page 6 of Appendix A3 was incorrect. The sentence should have stated: "The forecast of DSM savings is consistent with the Company's approved 2023-2027 DSM Plan."

2.2 Please update Table 3-1, providing a breakdown of the incremental DSM savings between the 2023 Projected and 2024 Forecast year savings amounting to total incremental savings of 57.2 GWh.

Response:

Please refer to Table 1 below which provides the breakdown between the 2023 Projected and 2024 Forecast DSM savings that make up the total incremental savings of 57.2 GWh as shown in Table 3-1 of the Application.

Table 1: Breakdown of Incremental Energy Savings (GWh) from 2023 Projected and 2024 Forecast

Class	2023 Projected	2024 Forecast	TOTAL
Residential	(4.5)	(4.5)	(9.1)
Commercial	(11.3)	(11)	(22.3)
Wholesale	(3.8)	(3.8)	(7.6)
Industrial	(7.1)	(6.4)	(13.5)
Lighting	(0.1)	(0.1)	(0.2)
Irrigation	(0.1)	(0.1)	(0.2)
Net	(26.9)	(25.9)	(52.9)
Losses	(2.2)	(2.1)	(4.3)
Gross Load	(29.1)	(28.1)	(57.2)

2.3 Please explain why incremental 2024 DSM savings for the industrial load are forecasted to be lower than the estimated DSM savings for industrial load provided in the FBC 2023 Annual Review application.

Response:

The DSM savings for industrial loads in the Annual Review for 2023 Rates application included 2022 Projected and 2023 Forecast energy savings. The DSM savings for industrial loads in the current Application include 2023 Projected and 2024 Forecast energy savings. The values for these savings are shown in Table 1 below.

Table 1: Comparison of DSM Savings for the Industrial Class

	2023 Annual Review Application (GWh)			2024 Annual Review Application (GWh)		
Class	**2022 Projected**	**2023 Forecast**	**2023 Total**	**2023 Projected**	**2024 Forecast**	**2024 Total**
Industrial	(8.6)	(7.6)	(16.2)	(7.1)	(6.4)	(13.5)

The industrial sector savings are heavily driven by horticultural lighting measures, namely, efficient LED grow lights for indoor agricultural and cannabis facilities. Due to the timing of when these facilities entered the market, there was an initial rush of participation as new facilities came online and began to purchase LED grow lights. As the market matured, the quantity of new facilities entering the market has slowed and thus there are fewer energy savings for this industry than in previous years. This market trend is expected by FBC and is forecast in Section 3.2 of FBC's 2021 Long-Term Electric Resource Plan and Long-Term DSM Plan.

Further, there are several uncertainties that come with understanding the number of facilities that are installing grow lights, along with significant variance in the quantity of lights installed at each facility. Much of the variance between the industrial load forecast between the 2023-2027 DSM Expenditures Plan and the DSM savings forecast in this Application comes from the timing of the respective forecasts. The 2021 Long-Term DSM Plan forecast high customer participation in industrial indoor agricultural and cannabis DSM in 2023 and anticipated the market would reach a saturation point and participation would decrease after 2023. Industrial DSM participation in these incentives during 2022 was higher than forecast, and FBC anticipates participation to decrease in 2023 and 2024 as the market may have reached maturation earlier than expected. FBC will continue to consider industrial stakeholder feedback in assessing future DSM market trends.

3.0 Reference: LOAD FORECAST AND REVENUE AT EXISTING RATES

Exhibit B-2, Section 3.4, Table 3-2, p. 18; FBC 2021 Long-Term Electric Resource Plan and Long-Term Demand-Side Management Plan Proceeding (FBC 2021 LTERP), Exhibit B-1, Section 3.2, pp. 82, 86

Impact of Load Forecast on Proposed Rate Increase

On page 18 of the Application, FBC provides Table 3-2 showing the normalized after-savings gross load by customer class for the 2024 Forecast Year (2024F).

On page 82 of the FBC 2021 LTERP application, FBC stated:

> The BAU [Business-As-Usual] is the forecast used for annual rate setting which is then extended out for the 20-year planning horizon. The Reference Case load forecast builds on the BAU forecast by including electric vehicle charging load, and new industrial loads with high confidence of materializing […] The Reference Case load forecast is the resulting forecast used for planning purposes in this LTERP.

On page 86 of the FBC 2021 LTERP application, FBC presented Figure 3-3 showing the gross energy load forecast for the planning horizon (2021–2040) under BAU and Reference Case Load Forecast scenarios.

3.1 Please provide, with supporting calculations, the revenue requirement and proposed rate increase for 2024 based on the following 2024 forecast load scenarios for the total load and for each customer class: (i) using the BAU load forecast for 2024; and (ii) using the 2024 Reference Case load forecast in the FBC 2021 LTERP.

<u>Response:</u>

FBC does not consider the two alternative approaches to forecasting load in 2024 to be reasonable for the purposes of setting 2024 rates, as the forecasts used in the 2021 LTERP are for long-term (20 year) forecasting purposes and were developed for the 2021 LTERP based on actuals up to 2019 only. As such, the LTERP forecasts do not reflect any trend in the actual demand from 2020 to 2022 or any new load that was unknown at the time of the 2021 LTERP forecast.

In contrast, the forecasts used in revenue requirements are intended for short-term forecasting purposes and include more up-to-date data. FBC's forecasts in the annual reviews have consistently produced reasonably accurate results. Variances between actual and forecast load are expected, which is why FBC is approved to record all load variances in a deferral account.

However, for the purposes of responding to this IR, please refer to Table 1 below for the calculation of the 2024 revenue requirements (i.e., Line 42) and proposed 2024 rate increase (i.e., Line 46) for FBC if the 2024 Forecast load were based on:

(i) the BAU scenario in the 2021 LTERP; and

(ii) the Reference Case scenario in the 2021 LTERP.

FBC also provides the as-filed forecast for comparative purposes. FBC notes that the load forecasts under the BAU and Reference Case scenarios provided in the 2021 LTERP were before DSM savings. For an equivalent comparison with the forecasts in the 2024 Annual Review, FBC applied the same DSM savings from the 2024 Annual Review to the load forecasts in the BAU and Reference Case scenarios from the LTERP.

Table 1: Summary of FBC 2024 Rate Increase if Load Forecast is Based on 2021 LTERP BAU and Reference Case Scenarios

Line	Particular	2021 LTERP BAU	2021 LTERP Reference	2024 Annual Review As Filed	Reference
1	Load Before DSM Savings (MWh)				
2	Residential	1,205,837	1,205,838	1,307,962	
3	Commercial	989,297	1,012,861	996,458	
4	Wholesale	609,027	609,027	597,438	
5	Industrial	569,987	618,701	576,954	
6	Lighting	11,039	11,039	9,262	
7	Irrigation	35,978	35,978	38,684	
8	Net	3,421,164	3,493,443	3,526,758	Sum of Line 2 to Line 7
9	Losses	294,394	300,342	303,080	
10	Gross Load (MWh)	3,715,558	3,793,785	3,829,838	Line 8 + Line 9
11					
12	Load After DSM Savings (MWh)				
13	Residential	1,196,766	1,196,768	1,298,891	
14	Commercial	967,007	990,570	974,168	
15	Wholesale	601,401	601,401	589,812	
16	Industrial	556,521	605,236	563,488	
17	Lighting	10,860	10,860	9,084	
18	Irrigation	35,793	35,793	38,500	
19	Net	3,368,349	3,440,628	3,473,943	Sum of Line 13 to Line 18
20	Losses	290,050	295,998	298,736	
21	Gross Load (MWh)	3,658,399	3,736,626	3,772,679	Line 19 + Line 20
22					
23	Revenue at Existing 2023 Rate ($million)				
24	Residential	189.809	189.810	206.007	
25	Commercial	109.993	112.674	110.808	
26	Wholesale	56.666	56.666	55.574	
27	Industrial	49.185	53.490	49.800	
28	Lighting	2.655	2.655	2.221	
29	Irrigation	3.688	3.688	3.967	
30	Total ($million)	411.997	418.983	428.377	Sum of Line 24 to Line 29
31					
32	2024 Revenue Requirement ($million)				
33	Cost of Energy				
34	Power Purchase	156.410	161.682	173.694	Updated Based on Gross Load on Line 21
35	Wheeling Expense & Water Fees	19.838	19.838	19.838	Section 11, Schedule 19, Line 23 + Line 28
36	O&M Expense (Net)	63.174	63.174	63.174	Section 11, Schedule 19, Line 11
37	Depreciation & Amortization	64.070	64.070	64.070	Section 11, Schedule 19, Line 12
38	Property Taxes	18.573	18.573	18.573	Section 11, Schedule 19, Line 13
39	Other Revenue	(12.092)	(12.092)	(12.092)	Section 11, Schedule 19, Line 14
40	Income Taxes	10.075	10.075	10.075	Section 11, Schedule 19, Line 17
41	Earned Return	111.719	111.719	111.719	Section 11, Schedule 19, Line 19
42	**Total ($million)**	**431.767**	**437.039**	**449.051**	**Sum of Line 34 to Line 41**
43					
44	Revenue Deficiency / (Surplus)	19.770	18.056	20.674	Line 42 - Line 30
45					
46	**2024 Rate Increase**	**4.80%**	**4.31%**	**4.83%**	Line 44 / Line 30

In both the 2021 LTERP BAU and Reference Case scenarios, the 2024 Forecast load would be lower compared to the 2024 Forecast in this Application.

However, the impact of the reduced load on the power purchase expense (PPE) is not necessarily directly proportionate to the reduction in load, which is why the revenue deficiency and rate impacts do not correlate directly to the impact on load. This is because the PPE is made up of a mix of power supply resources, including purchases under the BC Hydro PPA (which may include Tranche 2 as well as Tranche 1 energy) and market and contracted purchases.

Ultimately, the BAU scenario results in a 2024 rate increase that is almost identical to the proposed rate increase in this Application, while the Reference Case scenario results in a slightly lower rate increase for 2024. However, as explained above, FBC does not consider either forecast method from the 2021 LTERP to be an appropriate method for forecasting load in rate-setting applications. The BAU and Reference Case scenarios use less up-to-date data and are intended for long-term planning purposes.

3.2 Please provide, with supporting calculations, the revenue requirement and proposed rate increase for 2024 if the 2024 forecast load were to vary by: (i) plus five percent; (ii) minus five percent; (iii) plus ten percent; and (iv) minus ten percent, for the total load and for each customer class.

Response:

Please refer to Table 1 below for the calculation of the 2024 revenue requirements (i.e., Line 42) and proposed 2024 rate increase (i.e., Line 46) for FBC if the 2024 forecast load were to vary by: (i) plus five percent; (ii) minus five percent; (iii) plus 10 percent; and (iv) minus 10 percent.

Table 1: Summary of FBC 2024 Rate Increase if Load Forecast is +/- 5% and +/- 10%

		10%	5%	0%	-5%	-10%	
Line	**Particular**	**10% Increase**	**5% Increase**	**No Change**	**5% Decrease**	**10% Decrease**	**Reference**
1	**Load Before DSM Savings (MWh)**						
2	Residential	1,438,758	1,373,360	1,307,962	1,242,564	1,177,165	
3	Commercial	1,096,104	1,046,281	996,458	946,636	896,813	
4	Wholesale	657,182	627,310	597,438	567,566	537,694	
5	Industrial	634,649	605,801	576,954	548,106	519,258	
6	Lighting	10,189	9,726	9,262	8,799	8,336	
7	Irrigation	42,552	40,618	38,684	36,750	34,816	
8	Net	3,879,434	3,703,096	3,526,758	3,350,420	3,174,082	Sum of Line 2 to Line 7
9	Losses	332,535	318,011	303,080	288,962	274,438	
10	Gross Load (MWh)	4,211,969	4,021,107	3,829,838	3,639,383	3,448,520	Line 8 + Line 9
11							
12	**Load After DSM Savings (MWh)**						
13	Residential	1,430,583	1,365,185	1,298,891	1,234,389	1,168,991	
14	Commercial	1,073,608	1,023,785	974,168	924,139	874,316	
15	Wholesale	649,613	619,741	589,812	559,997	530,126	
16	Industrial	617,519	588,672	563,488	530,976	502,128	
17	Lighting	9,595	9,132	9,084	8,206	7,743	
18	Irrigation	42,375	40,441	38,500	36,572	34,638	
19	Net	3,823,294	3,646,956	3,473,943	3,294,280	3,117,942	Sum of Line 13 to Line 18
20	Losses	327,949	313,425	298,736	284,376	269,852	
21	Gross Load (MWh)	4,151,243	3,960,381	3,772,679	3,578,656	3,387,794	Line 19 + Line 20
22							
23	**Revenue at Existing 2023 Rate ($million)**						
24	Residential	223.358	214.682	206.007	197.331	188.655	
25	Commercial	119.850	115.329	110.808	106.287	101.766	
26	Wholesale	58.849	57.066	55.574	53.501	51.718	
27	Industrial	53.430	51.615	49.800	47.985	46.170	
28	Lighting	2.448	2.334	2.221	2.108	1.995	
29	Irrigation	4.285	4.126	3.967	3.808	3.649	
30	Total ($million)	462.220	445.153	428.377	411.020	393.954	Sum of Line 24 to Line 29
31							
32	**2024 Revenue Requirement ($million)**						
33	Cost of Energy						
34	Power Purchase	214.411	194.293	173.694	157.375	146.937	Updated Based on Gross Load on Line 21
35	Wheeling Expense & Water Fees	19.838	19.838	19.838	19.838	19.838	Section 11, Schedule 19, Line 23 + Line 28
36	O&M Expense (Net)	63.174	63.174	63.174	63.174	63.174	Section 11, Schedule 19, Line 11
37	Depreciation & Amortization	64.070	64.070	64.070	64.070	64.070	Section 11, Schedule 19, Line 12
38	Property Taxes	18.573	18.573	18.573	18.573	18.573	Section 11, Schedule 19, Line 13
39	Other Revenue	(12.092)	(12.092)	(12.092)	(12.092)	(12.092)	Section 11, Schedule 19, Line 14
40	Income Taxes	10.075	10.075	10.075	10.075	10.075	Section 11, Schedule 19, Line 17
41	Earned Return	111.719	111.719	111.719	111.719	111.719	Section 11, Schedule 19, Line 19
42	**Total ($million)**	**489.768**	**469.650**	**449.051**	**432.732**	**422.294**	**Sum of Line 34 to Line 41**
43							
44	Revenue Deficiency / (Surplus)	27.548	24.497	20.674	21.712	28.340	Line 42 - Line 30
45							
46	**2024 Rate Increase**	**5.96%**	**5.50%**	**4.83%**	**5.28%**	**7.19%**	Line 44 / Line 30

As the table above shows, under the scenarios where the load increases by 10 percent or 5 percent, the 2024 rate also increases. This is due to the impact of the increased load on FBC's power purchase expense (PPE), which involves BC Hydro PPA and market purchases. FBC also notes that access to BC Hydro's embedded cost energy under the BC Hydro PPA is based on an annual nominated amount with multiple tiers of charges depending on the amount of the purchases. For example, any amount that exceeds the annual nominated amount will be charged at the Tranche 1 Energy Price plus 150 percent up to a maximum amount of 1,041 GWh, which then becomes Tranche 2 Energy. As such, the increase in PPE is not directly proportional to the increase in load, and depending on the amount of purchases, could outweigh the increase in revenue, resulting in an overall increase to the proposed 2024 rate.

In contrast, due to the non-direct relationship between load and PPE, the loss of revenue due to the reduced load in the scenarios of minus 5 percent and minus 10 percent outweighs the reduced PPE, resulting in an overall increase to the proposed 2024 rates as well.

4.0 Reference: LOAD FORECAST AND REVENUE AT EXISTING RATES

Exhibit B-2, Appendix A2, p. 10, Appendix A3, p. 4; FBC 2023 Annual Review, Exhibit B-2, Appendix A3, p. 4, Exhibit B-6, British Columbia Old Age Pensioners' Organization et al. (BCOAPO) Information Request (IR) 10.1; FBC 2022 Annual Review, Exhibit B-2, Appendix A3, p. 4

Residential Customer Count Forecast

On page 10 of Appendix A2 to the Application, FBC provides the actual and forecast Customer Count variances for each customer class, reproduced in part below for the residential customer class:

Customer Count	2017	2018	2019	2020	2021	2022
Actual						
Residential	117,748	120,291	122,465	124,966	126,678	129,131
Forecast						
Residential	116,031	117,774	120,405	124,076	124,603	128,941

On page 4 of Appendix A3 to the Application, FBC provides its estimate for the 2024 year-end residential customer count using a six-year regression period (i.e. 2017 to 2022).

On page 4 of Appendix A3 to the FBC 2023 Annual Review application, FBC provided its estimate for the 2023 year-end residential customer count using a three-year regression period (i.e. 2019, 2020, 2021).

On page 4 of Appendix A3 to the FBC 2022 Annual Review application, FBC provided its estimate for the 2022 year-end residential customer count using a three-year regression period (i.e. 2018, 2019, 2020).

In response to BCOAPO IR 10.1 in the FBC 2023 Annual Review proceeding, FBC explained that the use of a longer regression period than the three years to forecast the residential customer count would result in an "unreasonably low forecast". FBC further stated: "This change in the correlation between population and customers is indicative of a trend toward fewer occupants per dwelling. The implication is that, for a given increase in population, FBC adds more customers today than in the past."

4.1 Please explain why FBC used a regression period of six years to forecast the 2024 residential customer count, as compared to the three-year regression period used in 2022 and 2023 proceedings to forecast the residential customer counts for those years.

<u>Response:</u>

Each year, FBC chooses the regression period based on statistical criteria and other information available, such as the year-to-date actual customer count. As the trend in correlation between population and customers can change from year to year as the latest actual data is added, the regression period may change from forecast to forecast, just as it has this year compared to the forecast used in the Annual Review for 2023 Rates.

For the 2023 Seed year and 2024 Forecast, the statistical analysis shows that the three-year regression has a P-value of over 0.05, indicating that the data set is not statistically significant (i.e., a result of chance). As such, FBC determined that it could not use the three-year regression. In contrast, the six-year regression has a P-value of less than 0.05,[2] which indicates that the data and the underlying trend is statistically significant (i.e., not a result of chance).

4.1.1 Please explain whether FBC anticipates the trend in correlation between population and customers to change for the forecast year from previous years. If so, why. If not, why not.

Response:

FBC cannot know whether the trend in correlation between population and customers will change in the forecast year compared to previous years. Rather than attempting to guess the trend that will emerge over the forecast year, FBC bases its residential customer forecast on actual historical data using a regression that is statistically significant. This historical data will reflect the current correlation between population and customers and is therefore the most reasonable basis for the forecast. If the correlation between population and customers changes over the forecasting period, the impact of such a change would be small and any such change will be reflected in the historical data used in the forecast for the following year.

As shown in Table 12-1 of the Application, variances due to over- or under-forecasting of residential customer count and/or load are captured in the Flow-through deferral account, and are recovered from/returned to customers in the following year.

4.2 Please provide the year-to-date actual and projected residential customer count for 2023 compared to the 2023 forecast and discuss whether a longer regression period (e.g. six years as used to forecast the 2024 residential customer count) might have resulted in a more or less accurate 2023 forecast customer count.

[2] This is the value that is most commonly used for a statistically significant test.

Response:

The year-to-date actual (as of August 2023) residential customer count is 130,447 and the remaining four-month projection is 731, resulting in a total 2023 Projected residential customer count of 131,178.

If a six-year regression was used in the Annual Review for 2023 Rates, then the 2023 customer forecast would have been 129,296, which is negative 1.4 percent below the 2023 Projected number of 131,178 (with actuals up to August).

Please refer to the table below which compares the 2023 Projected number (with actuals up to August) to the 2023 Approved forecast and a new forecast using a six-year regression. The six-year regression would have resulted in an under-forecast for 2023 with a larger absolute variance.

Residential Customer Count	2023 Forecast	2023 Projected (with Actuals up to August)	Variance (%)
2023 Approved (3-year regression)	132,015	131,178	0.6%
New 2023 Forecast (6-year regression)	129,296	131,178	-1.4%

4.3 Please provide a revised 2024 year-end residential customer count forecast, adjusted for a regression period of three years from 2020 to 2022. As part of the response, please explain the impact of the adjusted regression period on the residential load forecast.

Response:

As discussed in the response to BCUC IR1 4.1, the P-value for the three-year regression was greater than 0.05, indicating that the resulting forecast would not be statistically significant (i.e., it would be by chance). Therefore, the use of the three-year regression would not produce a statistically appropriate basis for the forecast.

However, to be responsive, the 2024 year-end residential customer count, adjusted for a regression period of three years from 2020 to 2022, would forecast 132,575 customers. This customer count forecast would result in a 6 GWh decrease in load as compared to the customer count forecast using a regression period of six years.

5.0 Reference: LOAD FORECAST AND REVENUE AT EXISTING RATES

Exhibit B-2, Section 3.4.1, p. 20, Appendix A3, p. 4; FBC 2023 Annual Review, Exhibit B-2, Section 3.4.1, p. 19, Exhibit B-6, BCOAPO IR 8.2.1; FBC 2022 Annual Review, Exhibit B-2, Section 3.4.1, p. 16

Residential Use Per Customer (UPC) Data

On page 4 of Appendix A3 to the Application, regarding the 2024 forecast residential UPC, FBC states:

> The before-savings UPC was based on a 10-year historic trend of annual UPC values from 2013 to 2022.

In response to BCOAPO IR 8.2.1 in the FBC 2023 Annual Review proceeding, FBC stated:

> The approach for forecasting the residential UPC used in the Application is the same as that used in the Annual Review for 2022 Rates and the Annual Review for 2020 and 2021 Rates. In the Annual Review for 2019 Rates, FBC found that there was no statistically significant trend in the most recent UPC data and therefore applied a three-year average.

On page 20 of the Application, FBC presents Figure 3-3 showing the actual normalized after-savings residential UPC from 2013 to2022 inclusive and the after-savings UPC forecasts of 9.95 and 10.04 for the 2023 Approved and 2023S (Seed) years, respectively.

On page 19 of the FBC 2023 Annual Review application, FBC provided an after-savings UPC forecast of 10.04 for 2022.

On page 16 of the FBC 2022 Annual Review application, FBC provided 2020 and 2021 after-savings UPC forecasts of 10.75 and 10.10, respectively.

5.1 Please complete the following table:

	2019	2020	2021	2022	2023
Approved Annual After-Savings UPC (MWh)					
Weather Normalized Annual UPC (MWh)					N/A
Percent Variance between Weather Normalized and Approved Annual UPC (%)					

Response:

The requested table is presented below.

	2019	2020	2021	2022	2023
Approved Annual After-Savings UPC (MWh)	11.27	10.75	10.10	10.04	9.95
Weather Normalized Annual UPC (MWh)	10.43	10.89	10.57	10.32	N/A
Percent Variance between Weather Normalized and Approved Annual UPC (%)	-7.4%	1.2%	4.5%	2.8%	N/A

5.2 Please explain why annual UPC values have been historically under-forecasted over the current Multi-Year Rate Plan (MRP) term as compared to the actual amounts shown in Figure 3-3.

Response:

As shown in the response to BCUC IR1 5.1, the residential UPC has been under-forecast three times and over-forecast once between 2019 and 2022. However, FBC does not collect data that would explain the UPC values as there are many factors, which could be both compounding and offsetting, that impact residential UPC each year. For instance, between 2020 and 2022, FBC customers were impacted by the COVID-19 pandemic. While FBC cannot quantify the impact, it is reasonable to assume that the COVID-19 pandemic restrictions had an impact on the UPC. The impact of the COVID-19 restrictions is likely to have had an impact on the under forecast in UPC and residential load in 2021 because the 2021 forecast was based on actuals through 2019 only. However, the variance improved in 2022 as the pandemic subsided. FBC considers that both the residential UPC and demand forecasts have performed well.

5.2.1 Please calculate the residential load using the actual residential customer count and the after-savings UPC forecast for each year between 2020–2022. As part of the response, please explain any variances between this calculated load and the actual residential load for each of these years.

Response:

Please refer to Table 1 below for the calculated residential load based on the actual residential customer count and the after-savings UPC forecast for 2020, 2021, and 2022.

Table 1: Calculated Residential Load using Actual Residential Customer Count

Year	Actual Average Residential Customer Count[3]	Forecast After-Savings UPC (MWh)	Calculated Forecast of Residential Load (GWh)	Actual Normalized Residential Load (GWh)[4]	Absolute Variance (%)
	(a)	(b)	(c) = (a) x (b)	(d)	(d)/(c) - 1
2020	123,716	10.75	1,330	1,347	1.3%
2021	125,822	10.10	1,271	1,330	4.6%
2022	127,905	10.04	1,284	1,320	2.8%

The calculated residential loads requested for 2020, 2021, and 2022 would have an average variance of approximately 2.9 percent. As discussed in the response to BCUC IR2 5.2, FBC does not collect data that would explain the UPC values as there are many factors, which could be both compounding and offsetting, that impact residential UPC each year.

Since this calculation uses the actual residential customer count to forecast the load, the variance in percentage is of course smaller than FBC's forecasting methods, which use a forecast of residential count and UPC. However, the variance is not materially different than the average variance for residential loads of approximately 3.3 percent based on FBC's forecasting methods as shown in Section 6.2 of Appendix A2 of the Application.

The approach for calculating residential load suggested by this IR cannot be conducted on a forecast basis as this calculation requires the actual residential customer count for those years that are to be forecast, which can only be done in hindsight. The actual residential customer counts for 2020, 2021, and 2022 were not available at the time when FBC was forecasting the residential loads in the annual reviews for those years.

5.2.2 Given the consistency in FBC's approach to forecast the residential UPC over the MRP term, please discuss FBC's assessment of the accuracy of the residential load forecast in light of historically under-forecast UPC values.

Response:

Please refer to the response to BCUC IR1 5.2.

[3] Pease refer to the response to BCOAPO IR1 6.3 for the actual average residential customer count.
[4] Table 5.1 of Appendix A2 of Application.

5.3 Please explain the reasonableness of using a 10-year historic trend of annual UPC values to calculate the 2024 residential UPC forecast compared to using a 6-year and 3-year historic trends.

Response:

FBC uses a 10-year historic trend of annual UPC values since it is more statistically significant compared to the 6-year and 3-year historic trends. Table 1 below presents the trend regression results for 10, 6, and 3 years. The 10-year trend has a high R^2 value of 0.8 combined with a much lower P-value of 0.00028 when compared to the 6- and 3-year trends.

Table 1: 3, 6 and 10-Year Trend Regression Results

Regression	3 Year	6 Year	10 Year
Start Year	2020	2017	2013
End Year	2022	2022	2022
R^2	0.996	0.674	0.825
Adjusted R^2	0.992	0.592	0.803
df	5	2	9
P-value	0.04124	0.04527	0.00028
Intercept	580	348	395
Slope UPC	-0.28	-0.17	-0.19
2024 Forecast (MWh)	9.75	10.01	9.89

6.0 Reference: LOAD FORECAST AND REVENUE AT EXISTING RATES

Exhibit B-2, Section 3.4, p. 17, Footnote 8, Appendix A3, Section 1.1, pp. 1–2; FBC 2023 Annual Review, Exhibit B-2, Appendix A3, Section 1.1, p. 1, Footnote 3

Use of Actual Commercial Load in Gross Load Data

In Footnote 8 on page 17 of the Application, FBC states:

> Commercial loads are tested for weather sensitivity each year. For 2024, there is a low correlation with weather and as a result, the actual historic commercial loads are used in the preparation of Figures 3-1 and 3-5. […]

On page 1 of Appendix A3 to the Application, FBC states:

> Statistical tests were made to check whether the residential, wholesale, commercial and irrigation loads were sensitive to temperature due to heating and cooling demands. […] The regressions result in high R2 values for all seasons for the residential and wholesale load classes; therefore these classes are normalized. <u>The commercial class shows a low R2 value for all seasons</u> and the irrigation class for the winter, summer and fall seasons; therefore, these classes were not normalized. [*Emphasis added*]

On page 2 of Appendix A3 to the Application, FBC provides regression tables for each of the Residential, Wholesale, Commercial, and Irrigation customer classes in Tables A3-1 to A3-4, respectively.

In Footnote 3 on page 1 of Appendix A3 to the FBC 2023 Annual Review application, FBC stated:

> The commercial class data is normalized from 2014 to 2021 since a strong correlation was present in those years. All commercial data prior to 2014 is actual because it did not show a correlation to weather at that time.

6.1 Please provide the range of R2 values which are considered by FBC to be 'low' and 'high' values.

<u>Response:</u>

In this context FBC would consider any R^2 value below 0.5 to be low while any value above 0.7 would be considered high or reasonable. FBC notes there are no "textbook" definitions for high and low R^2 values and as a result these limits may be different in different forecast applications.

Furthermore, from a statistical point of view, FBC notes that when the 2022 actual weather-normalized commercial load was added to the regression, the R^2 value was less than 0.5 which suggests an alternative regression should be investigated. As a result, FBC tested the regression using actual commercial load (i.e., not normalized) which showed a high R^2 value. It is reasonable to use the regression that achieves a higher R^2 value.

6.2 Please explain and provide any reason(s) for the change in 2022 relating to the seasonal R2 values for the commercial load class (i.e. from a strong correlation in the 2014 to 2021 period to a low correlation for all seasons).

Response:

FBC cannot definitively explain the change in 2022 relating to the R^2 values, as there are various factors that could contribute to this change. However, FBC notes that it is possible that the more extreme weather observed recently did not influence the commercial load as much as the residential and wholesale loads, therefore causing a change in the correlation to weather.

Regardless of the reasons for the change, as explained in the response to BCUC IR1 6.1, FBC appropriately used a regression that showed a better correlation with actual data instead of weather-normalized data.

As discussed in the response to BCUC IR1 4.1.1, any variances due to over- or under-forecasting the 2024 commercial load will be captured in the Flow-through deferral account, and recovered from or returned to customers in the following year.

7.0 Reference: LOAD FORECAST AND REVENUE AT EXISTING RATES

Exhibit B-2, Section 3.4, p. 17, Section 3.4.4, p. 23; FBC 2023 Annual Review, Exhibit B-2, Section 3.4.4, p. 22; FBC 2022 Annual Review, Exhibit B-2, Section 3.4.4, p. 19

Industrial Load Forecast

On page 17 of the Application, FBC states: " In aggregate, the absolute load forecast variance in 2022 was 4.7 percent, which was primarily due to higher industrial loads and more residential customers coming onto the system than forecast. "

On page 23 of the Application, FBC states:

> Consistent with past practice, the industrial forecast is determined through a combination of customer load surveys and, when not available, escalation of the most recent annual loads by the corresponding provincial GDP [Gross Domestic Product] growth rates for individual industries.
>
> […] This year FBC received a response from 76 percent (32 of 42) of the surveys sent out. The responding customers represent approximately 91 percent of the total industrial load.

On page 22 of the FBC 2023 Annual Review application, FBC stated: "This year FBC received a response from 81 percent (34 of 42) of the surveys sent out. The responding customers represent approximately 90 percent of the total industrial load."

On page 19 of the FBC 2022 Annual Review application, FBC stated:

> A survey is used because individual industrial customers have the best understanding of what their future load will be. This year FBC received a response from 81 percent (35 of 43) of the surveys sent out. The responding customers represent approximately 91 percent of the total industrial load.

7.1 Please discuss any reasons for the decrease in participation from industrial customers in the annual load surveys.

<u>Response:</u>

Please refer to Table 1 below which provides a summary of the survey data from 2022 to 2024.

Table 1: Summary of Industrial Survey Data from 2022 to 2024

A	B	C	D	E	F
Annual Review	Surveys Sent	Responses	Change in Responses Relative to Prior Year	Percentage of Responses	Percentage by Load
2022	43	35	N/A	81%	91%
2023	42	34	-1	81%	90%
2024	42	32	-2	76%	91%

As shown in Column D of Table 1 above, the year-over-year change in the number of responders is one to two customers. It is reasonable to expect that the number of customers responding will change from year to year. FBC is not concerned with the small change in the number of customers responding to the survey because the response rate by load remains high and consistent. As shown in Table 1 above, the responses continue to represent over 90 percent of the industrial load.

The goal of the industrial survey is to receive a high return rate of survey responses by load, as load is the main input into the revenue forecast for the industrial class. Further, a reasonable level of staff effort[5] is applied each year to encourage every customer to respond, but the final decision to participate is up to the customer. A balanced approach needs to be used when soliciting a response to avoid customers reacting negatively and refusing to answer further surveys.

7.2 Please discuss whether FBC has identified any concerns with the decrease in survey participation over the last 3 years and what steps, if any, FBC plans to undertake to encourage future survey participation.

Response:

Please refer to the response to BCUC IR1 7.1.

7.3 Given the 4.7 percent load forecast variance for 2022, please discuss whether FBC has taken any steps this year to improve the survey information from each individual industrial customer. If not, please explain why not.

[5] FBC contacts each individual customer multiple times by email and phone.

Response:

FBC did not take any steps to improve the survey information for the individual industrial customers this year because the 4.7 percent load forecast variance for 2022 was mostly due to data centre loads and not due to the effectiveness of the survey. FBC notes that data centres are likely to be more difficult for the customers to forecast due to the nature of this relatively new industry, which could be influenced by many factors including economic conditions, provincial regulations, and weather. FBC has a dedicated account manager who works directly with these customers and supplies the survey information to the load forecasting group. If the variance from the data centre loads is removed, the total industrial variance is negative 1.9 percent.

8.0 Reference: LOAD FORECAST AND REVENUE AT EXISTING RATES

Exhibit B-2, Section 1.5.1, p. 8, Section 3.4.8, pp. 27–29, Appendix A3, p. 6

2024 Forecast Summer Peak Capacity

On page 6 of Appendix A3 to the Application, FBC states:

> The peak demand forecast is produced by taking the 10-year average (2013-2022) of historical peak data. The historical peak data is escalated by the gross load growth rate before it is averaged to account for the growth of demand on the FBC system. […] The 12 monthly peaks, as well as the seasonal peaks, were then escalated by the annual load growth rates in the forecast period to produce forecast monthly peaks.

On page 8 of the Application, FBC states: "For 2024, FBC forecasts the net load to decrease by approximately 1 GWh when compared to 2023 Approved."

In Figure 3-12 on page 29 of the Application, FBC provides the following after-savings Summer system peaks for the 2023 and the 2024 forecast years:

- Summer 2023F System Peak (after savings) – 683.5 MW
- Summer 2024F System Peak (after savings) – 697.3 MW

On page 27 of the Application, FBC states: "[…] the winter peak can fall in any month between November of the current year and February of the following year, and the summer peak can fall in any month between June and August."

8.1 Please provide the actual summer system peak in MW for 2023, along with a comparison to the forecast summer system peak.

Response:

The actual summer peak in 2023 was 682 MW, while the 2023 Approved summer peak was 684 MW, which is a variance of negative 0.3 percent.

8.2 Please discuss and provide supporting rationale for the increase to the 2024 forecast summer system peak capacity (from 683.5 MW to 697.3 MW), given the declining gross load growth rate on the FBC system for the forecast year.

Response:

The peak forecast is based on the average of escalated historic actual peaks from the past 10 years. FBC has recently recorded some larger than average summer peaks which are included in the calculation. As a result, the peak forecast has increased compared to the 2023 Approved summer peak forecast even though the gross load forecast is decreasing.

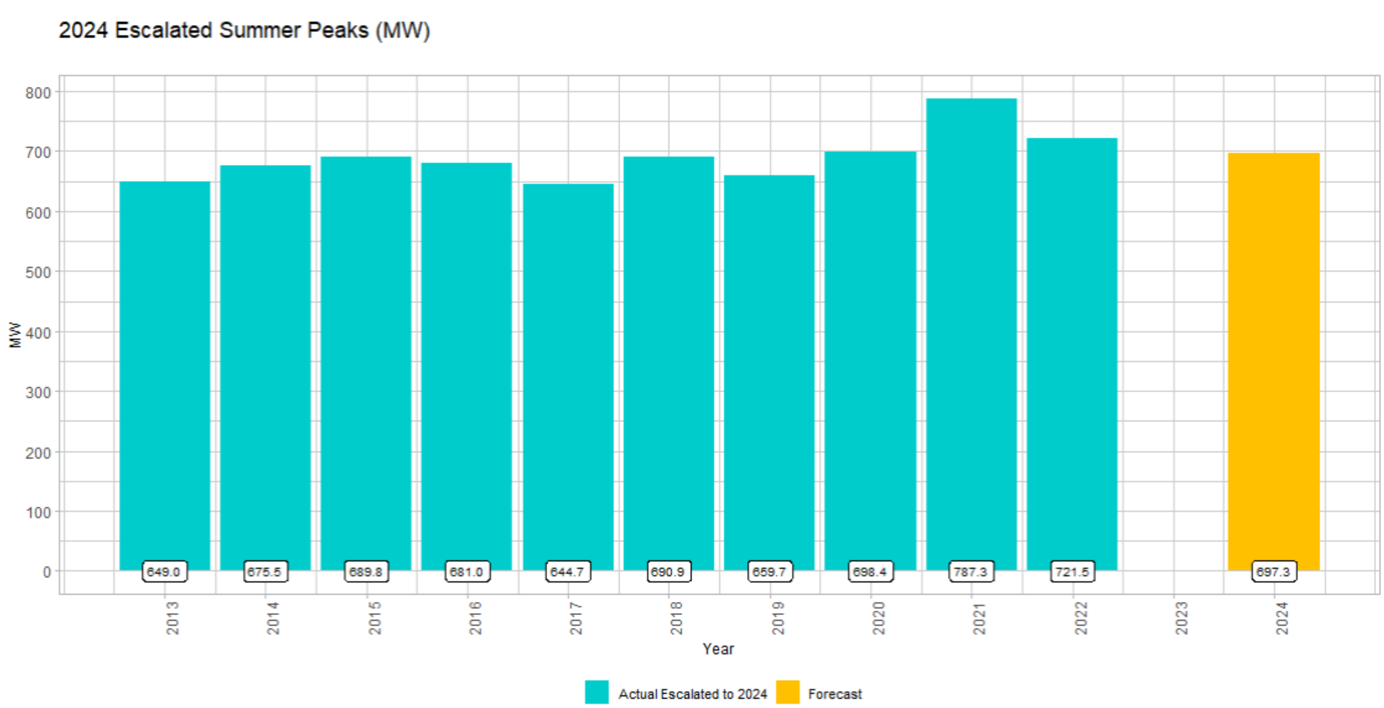
The following table demonstrates the calculation of the 2024 Forecast summer peak as per the method described in Section 1.3 of Appendix A3.

Row	Summer, MW	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Forecast, MW
1	Escalated to 2024	649.0	675.5	689.8	681.0	644.7	690.9	659.7	698.4	787.3	721.5	689.8
2	Adjustment for Data Centers and DSM											7.5
3	Summer Peak											697.3

The 697.3 MW result is explained as follows:

1. The average of the escalated actual peaks is 689.8 MW.
2. A net adjustment of 7.5 MW is added to account for data centre loads and DSM savings.
3. The forecast peak of 697.3 MW is the sum of 689.8 MW and 7.5 MW.

The following figure shows the escalated peaks. The impact of the “heat dome” weather event is visible in 2021.



9.0 Reference: POWER SUPPLY

Exhibit B-2, Section 3.8, p. 33, Section 4.3, p. 35, Section 4.4, p. 36, Section 4.6.2, Table 4-3, p. 38

Portfolio Optimization – BC Hydro Power Purchase Agreement (PPA)

On page 33 of the Application, FBC states:

> FBC is forecasting a decrease in consumption in 2024 compared to 2023 Approved. The 2024F gross load is forecast to be approximately 3,773 GWh, which is a 2 GWh decrease compared to the 2023 Approved gross load.

On page 38 of the Application, FBC states:

> BC Hydro [British Columbia Hydro and Power Authority] PPA expense is forecast to increase in 2024 by $0.978 million compared to the 2023 Projected expense. The drivers of the variance are a higher purchased volume (62 GWh) […] for a total increase of $3.978 million.

9.1 Please discuss why FBC plans to purchase a higher volume of energy from the BC Hydro PPA considering annual consumption is expected to decrease in 2024 compared to 2023 Approved.

Response:

The main driver of the forecast increase in BC Hydro PPA purchases in 2024 is reduced Market and Contracted Purchases volumes, not decreased gross load. While the 2024 Forecast does include already executed fixed price contract purchases, as well as forecast wholesale market purchases to cover energy requirements during winter months and capacity shortfalls in June and July 2024, FBC may still execute additional forward market contracts if it is economic to do so, which will have the impact of decreasing planned PPA purchases. In addition, FBC has increased its 2023/24 PPA nomination by 155 GWh to 929 GWh, which enables FBC access to more low-cost Tranche 1 PPA embedded cost energy, which has been economic compared to the wholesale market in recent years.

On page 36 of the Application, FBC states:

> On April 28, 2023, FBC filed its 2023/24 AECP [Annual Electric Contracting Plan] with the BCUC […] FBC's forecasts of PPE [Power Purchase Expense] for the remainder of 2023 and for 2024 are based on the plan detailed in the 2023/24 AECP, which was accepted by the BCUC on June 1, 2023 […]
>
> FBC updated its forecast load and resource balance for the 2023/24 contract year and submitted a nomination of 929 GWh.

9.2 Please complete the following table:

	2020/21 Contract Year	2021/22 Contract Year	2022/23 Contract Year to Date	Forecast 2023/24 Contract Year
Total BC Hydro PPA Nomination (GWh)				
Percentage of BC Hydro PPA Nomination Used (%)				

Response:

Please refer to the following requested table.

	2020/21 Contract Year	2021/22 Contract Year	2022/23 Contract Year to Date*	Forecast 2023/24 Contract Year
Total BC Hydro PPA Nomination (GWh)	674	645	774	929
Percentage of BC Hydro PPA Nomination Used (%)	80%	101%	116%	111%

*Actuals through August 2023

Further, on page 38 of the Application, FBC states that it has decreased its 2024 Forecast of BC Hydro PPA expense by $3.000 million in savings to account for potential real-time opportunities to displace BC Hydro PPA purchases with lower cost market purchases. The 2023 Projected BC Hydro PPA expense does not include any adjustment for potential real-time opportunities for the remainder of 2023.

On page 35 of the Application, FBC states:

> However, over the past several years, the regional electricity market has been in a state of consistently higher prices compared to recent historical levels. This is due to several factors that include resource adequacy concerns, increased natural gas prices, and increased severe weather events. This change in the market price environment has resulted in little opportunity to displace Tranche 1, nominated PPA purchases on a forward basis.

On page 38 of the Application, FBC provides Table 4-3 showing a comparison of the 2023 Projected and 2024 Forecast PPE.

9.3 Please discuss how FBC estimated net cost savings of $3.000 million in BC Hydro PPA expense for 2024. As part of the response, please provide the basis for assumptions related to 2024 real-time market prices.

Response:

FBC looked at potential displacement opportunities for the 2023/24 contract year in terms of both monthly volume and market prices compared to the Tranche 1 Over Nomination rate. FBC estimates it may be able to displace approximately 100 GWh of the PPA energy required above the nomination during the March-June period, at a savings of $30/MWh against the PPA Tranche 1 Over Nomination rate.

9.4 Please provide the number of days where off-peak and on-peak day ahead market prices were less than the BC Hydro PPA price for each of the following annual contract years i) 2020/21; ii) 2021/22; and iii) 2022/23 year-to-date.

Response:

The following table shows the number of days where the ICE Mid-C Day Ahead Index Price for off-peak and on-peak hours were less than the BC Hydro 3808 Tranche 1 Energy price for the applicable contract year. Market prices are converted to Canadian dollars using the last day exchange rate in each month. Excluded from the peak day count are non-heavy load days (i.e., Sundays and NERC holidays). The YTD 2022/23 contract year count includes all days from October 2022 through August 2023.

	Contract Year		
Count of Days Below BCH PPA Price	2020/21	2021/22	YTD 2022/23
Off-Peak	289	163	55
On-Peak	201	88	31

9.5 Please complete the following table:

	2020	2021	2022
Forecast BC Hydro PPA Expense ($)			
Actual BC Hydro PPA Expense ($)			
Forecast Cost Savings in PPA Expense ($)			

Actual Cost Savings in PPA Expense ($)			
Actual Wholesale Market Purchase ($)			
Actual Fixed Price Contract Purchase ($)			

Response:

FBC provides the following requested table below. FBC notes the following regarding the information contained in the table:

- The Actual Cost Savings in PPA Expense ($) line represents the savings associated with wholesale market purchases compared to PPA purchases included in the forecast.[6] A positive (+) value is the total actual realized savings, whereas a negative (-) value represents excess costs.
- For 2020, the forecast figures are based on the Evidentiary Update to the Annual Review for 2020-2021 Rates application, which included actuals through September 2020.
- The Actual Wholesale Market Purchase line includes short-term and spot market purchases, whereas the Actual Fixed Price Contract Purchase ($) line includes all fixed market block purchases, but excludes purchases made under the Brilliant Expansion 10-year agreement and operating reserve.

	2020	2021	2022
Forecast BC Hydro PPA Expense ($)	$ 42.340	$ 47.440	$ 44.062
Actual BC Hydro PPA Expense ($)	$ 42.434	$ 43.333	$ 53.494
Forecast Cost Savings in PPA Expense ($)	$ 1.500	$ 6.000	$ 4.000
Actual Cost Savings in PPA Expense ($)	$ 0.461	$ (1.581)	$ 0.032
Actual Wholesale Market Purchase ($)	$ 2.042	11.551	9.348
Actual Fixed Price Contract Purchase ($)	$ 10.591	$ 12.296	12.132

9.6 Please provide a table similar to Table 4-3 showing a comparison of the Actual and Forecast power purchase expenses for each generation source in 2022, broken down by volume (GWh) and average cost ($/kWh).

6 This does not include savings associated with avoided PPA Tranche 1 purchases over the annual nomination that would have incurred a 50 percent surcharge. These purchases were not included in planned PPE; however, they would have been required in 2021 and 2022 as a result of gross load exceeding forecast. In other words, these figures are not load-adjusted.

1 **Response:**

2 The table below compares the 2022 Forecast and Actual power purchase expense broken down
3 by generation source and provides the volume (GWh) and average cost ($/MWh) for each
4 generation source.

Line No.	Description	Forecast 2022	Actual 2022	Difference
1	Brilliant	$ 41.841	$ 41.833	$ (0.007)
2	BC Hydro PPA	$ 44.062	$ 53.494	$ 9.433
3	Waneta Expansion	$ 42.701	$ 34.056	$ (8.645)
4	Market and Contracted Purchases	$ 15.102	$ 24.675	$ 9.573
5	Independent Power Producers	$ 0.073	$ 0.058	$ (0.015)
6	Self-Generators	-	$ 0.100	$ 0.100
7	CPA Balancing Pool	$ 0.000	$ (0.104)	$ (0.105)
8	Transmission Service Loss Recoveries	-	-	-
9	Special and Accounting Adjustments	-	$ (0.654)	$ (0.654)
10	Total	$ 143.779	$ 153.457	$ 9.679
11				
12	Gross Load (GWh)	3,591	3,862	271
13				
14	Total Volume			
15	FBC Resources	1608	1588	(20)
16	Brilliant	918	903	(15)
17	BC Hydro PPA	651	754	103
18	Waneta Expansion	0	0	-
19	Market and Contracted Purchases	413	606	194
20	Independent Power Producers	1	1	(0)
21	Self-Generators	0	2	2
22	CPA Balancing Pool	-12	-2	10
23	Transmission Service Loss Recoveries	12	11	(1)
24	Special and Accounting Adjustments	0	0	-
25	Total	3591	3862	271
26				
27	Average Cost			
28	FBC Resources	N/A	N/A	N/A
29	Brilliant	$ 45.59	$ 46.31	$ 0.72
30	BC Hydro PPA	$ 67.66	$ 70.95	$ 3.29
31	Waneta Expansion	N/A	N/A	N/A
32	Market and Contracted Purchases	$ 36.61	$ 40.70	$ 4.09
33	Independent Power Producers	$ 85.72	$ 79.22	$ (6.50)
34	Self-Generators	-	$ 49.11	
35	CPA Balancing Pool	$ (0.02)	$ 49.75	$ 49.77
36	Transmission Service Loss Recoveries	N/A	N/A	N/A
37	Special and Accounting Adjustments	N/A	N/A	N/A
38	Total	$ 40.04	$ 39.73	$ 0.31

5

C. OTHER REVENUE

10.0 Reference: OTHER REVENUE

Exhibit B-2, Section 5.8, p. 44; FBC 2023 Annual Review, Exhibit B-3, BCUC IR 10.3

Electric Vehicle (EV) Direct Current Fast Charging Stations Carbon Credits

On page 44 of the Application, FBC states:

> FBC anticipates that 1,210 credits from the 2021 compliance period, with an approximate value of $0.544 million, will be monetized prior to the end of 2023 and has therefore included this amount in 2023 Projected Other Revenue. Since FBC did not forecast any monetization of carbon credits in the 2023 Approved amount as part of the Annual Review for 2023 Rates, <u>the variance between the 2023 Projected amount of $0.544 million and the 2023 Approved amount of zero will be captured in the Flow-through deferral account and returned to customers in 2024 rates</u>. Consistent with the approach described in the Annual Review for 2023 Rates, FBC does not forecast revenue from the sale of credits for future years due to the uncertainty in the timing of the credit validation as well as the market pricing. <u>As such, FBC is not forecasting any carbon credit revenues in 2024.</u> [*Emphasis added*]

10.1 Please provide a status update on the anticipated sale of carbon credits by the end of 2023, including, but not limited to: the timing of the expected sale if it has not yet taken place, the rationale and source of the $0.544 million approximate value given the uncertainty in market pricing or the actual monetized value if sale has now occurred, and the characteristics of the buyer such as, whether it is to one party or multiple parties and how FBC finds these parties.

<u>Response:</u>

FBC is awaiting approval by the Ministry of its 2021 Compliance Report and the validation of the 1,210 credits. FBC does not know exactly when the Ministry will approve the 2021 Compliance Report. However, FBC continues to expect the credits from the 2021 Compliance Report will be validated in 2023 and that FBC will sell these validated credits before the end of 2023.

The estimated value of $0.544 million is based on the Q1 2023 average market credit price of $449.20 per credit[7], which is published by the Ministry.[8] Given all transfer of credits will have to be reported to and approved by the Ministry, FBC considers the credit market data published by the Ministry to be the most accurate information available.

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7 $449.20 per credit x 1,210 credits = $543,532.

8 https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/transportation-energies/renewable-low-carbon-fuels/credits-market.

FBC notes that the Q1 2023 average market credit price was used for the 2023 Projected amount of $0.544 million as it was the most updated market data available at the time when FBC was preparing the Application. However, while the average market credit prices provide a general indication of the value of the credits, FBC will consider the actual sale of the credits after they have been validated based on the actual bids received from potential buyers.

In any case, as discussed on page 44 of the Application and referenced in the preamble above, FBC's EV DCFC stations are approved for flow-through treatment. Therefore, any variances between actual and forecast amounts due to the timing of credit valuation or value of the carbon credits will be captured in the Flow-through deferral account and will be recovered from or returned to customers in the subsequent year.

Once the credits are approved by the Ministry, the steps for FBC to find and select the buyer of the credits are:

1. FBC will canvas approved Part Three suppliers from the approved list on the BC-LCFS website to solicit bids.[9]
2. Once FBC selects a preferred bid, purchase documents will be completed and executed.
3. FBC will submit an executed purchase transaction for Ministry approval through the BC-LCFS Transportation Fuels Reporting System (TFRS). Upon confirmation of the transaction in the TFRS, the transaction will be complete, and FBC will receive the funds.

10.2 Please discuss the pros and cons of FBC's current methodology for valuing EV carbon credits, including the approach not to forecast revenue from the sale of carbon credits in 2024. As part of the response, please explain why FBC considers this approach to be reasonable, considering the more established nature of the EV carbon credits program compared to the prior year.

Response:

FBC does not see any disadvantages to its current methodology for valuing the EV carbon credits and considers its approach of not forecasting revenue in 2024 to be reasonable at this time.

Regarding the valuation of EV carbon credits, FBC generally monetizes all credits within a year from the date that the credits are validated. FBC uses the credit market data published by the Ministry which is the best and most up-to-date information available. Further, the credit market data published by the Ministry is the current average market price, which provides a good estimate of the value of credits in the short-term (i.e., within the current year). However, the credit market

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9 https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/renewable-low-carbon-fuels/rlcf-013.pdf.

data published by the Ministry is unlikely to be reliable for the purposes of forecasting future years. This is because the Ministry's credit market data represents recent credit sale prices and is therefore not a forecast of the credit market. Since there is generally a lack of credible forecast data available on future credit values, FBC considers it most appropriate to limit its projections/forecasts of carbon credits to the current year (2023 in this case), as forecasts for 2024 or future years would be quite speculative and likely inaccurate given the variability of the carbon credit market.

Additionally, as noted in the response to BCUC IR1 10.1, there continues to be delays in the validation of carbon credits. FBC is still awaiting the approval of its 2021 Compliance Report, which was submitted to the BC-LCFS in March 2022. Given the length of time that has lapsed since filing the 2021 Compliance Report, there remains uncertainty on the length of time taken by the BC-LCFS between submission and approval. FBC continues to anticipate the 2021 Compliance Report will be approved in 2023 as the report was submitted to the BC-LCFS over a year ago; however, there is less certainty regarding the 2022 Compliance Report, which was submitted in March of 2023. If the credits from the 2022 Compliance Report are validated in 2024, then FBC will likely attempt to monetize the credits in 2024, but there is a possibility that this could be delayed to 2025.

In consideration of the uncertainties around the future pricing of carbon credits and the timing of receiving credit validation from the BC-LCFS, any forecast put forward by FBC for 2024 (or future years) would be highly speculative.

Finally, since FBC is approved to treat the carbon credit revenue as flow-through, if FBC does realize any carbon credit revenue in 2024, it will be returned to customers in 2025. Therefore, FBC considers its current approach to limiting the forecasting of carbon credit revenue to the current year (2023 in this case) to be the most reasonable at this time.

In response to BCUC IR 10.3 in the FBC 2023 Annual Review proceeding, FBC provided the following table showing the number of EV carbon credits awaiting validation by the British Columbia Low Carbon Fuel Standard:

Year	Carbon Credits
2021	1,210
2022	Unknown*

**A 2022 compliance report has not been submitted as the report is not generated until a calendar year has finished.*

10.3 Please confirm if the 2022 compliance report for EV carbon credits, as referenced above, has been submitted to the British Columbia Low Carbon Fuel Standard.

10.3.1 If confirmed, please provide the total number of EV carbon credits for which approval is being sought and the total number of EV carbon credits which are pending validation by the British Columbia Low Carbon Fuel Standard.

10.3.2 If not confirmed, please provide an expected date by which the 2022 compliance report will be filed.

Response:

Confirmed. FBC submitted the 2022 Compliance Report in March 2023 for a total of 441 credits. The report (and therefore the credits) is pending validation by the BC-LCFS.

D. OPERATIONS AND MAINTENANCE EXPENSE

11.0 Reference: OPERATIONS AND MAINTENANCE (O&M) EXPENSE

Exhibit B-2, Section 1.4.2, p. 6, Section 1.3, p. 2

Productivity Initiatives

On page 6 of the Application, FBC states regarding the productivity initiatives:

> Automated patching: FortisBC [FBC and FortisBC Energy Inc.] has started taking advantage of technologies for automated patching. Moving to automated patching has streamlined the patching process for several applications in the FortisBC environment. With automated patching, the process can be scheduled to run during a more appropriate business outage window with no user involvement required. Repetitive tasks can be automated, eliminating human error, increasing productivity, and decreasing administrative costs. FortisBC expects to realize minor O&M savings by the end of 2023 with increased patch cadence and accuracy. Additional time savings will be seen as more systems transition to automated patching. [*Emphasis in original*]

11.1 Please discuss whether there are any risks arising due to the transition of FortisBC applications to a system of automated patching, as compared to deploying patches manually, including any risks from a cyber security point of view. As part of the response, please explain how FBC is planning to mitigate the impact of these risks, if there are any.

Response:

Automated patching reduces FortisBC's cyber security risk. Applying patches automatically on an increased cadence allows FortisBC to mitigate cyber security vulnerabilities quicker as well as reduce the potential for manual mistakes to occur. When systems are patched, there is still manual testing required as part of the process. Support teams plan the patching window and can respond immediately to any functional issues that may arise.

On page 2 of the Application, FBC provides Table 1-1 showing the Annual Review Requirements for the MRP and the FBC's response. The table is reproduced in part below:

Item	Description	Response or Reference
2	Identification of any efficiency initiatives that the Utilities have undertaken, or intend to undertake, that require a payback period extending beyond the MRP period with recommendations to the BCUC with respect to the treatment of such initiatives.	FBC has not identified any efficiency initiatives with a payback beyond the end of the MRP period

11.2 For each productivity initiative, please explain why FBC considers that the initiative as discussed in Section 1.4 of the Application does not have a payback beyond the end of the MRP term.

Response:

FBC clarifies that the intent of the response to Item #2 in Table 1-1 of the Application (as shown in the preamble) is to indicate that FBC has not identified any initiatives that require a payback period beyond the MRP term. If there were such initiatives that required a payback period beyond the MRP term, FBC would need to seek approval to receive Efficiency Carryover Mechanism (ECM) treatment. The requirements for ECM treatment and the implications of receiving such treatment (namely that the savings associated with ECM initiatives will continue to be shared 50/50 with customers past the end of the MRP term for a maximum of three years), are detailed on pages 86 and 87 of the MRP Decision.

The initiatives described on pages 3 to 7 of the Application will, in some cases, result in savings that extend beyond the MRP term; however, none of the initiatives require a payback period beyond the MRP term (and thus none of the initiatives require FBC to seek approval for ECM treatment) for one or more of the following reasons:

- The benefits have largely been captured and have exceeded the investments required, such as the paperless billing initiative;
- The investment required is very minimal; thus, it is not expected the payback period will extend beyond the MRP term, such as the customer service initiatives; and/or
- The initiatives are still under the early evaluation stage and there is no definitive information regarding the anticipated financial benefits; thus, FBC is unable to evaluate the payback period at this time.

As such, FBC is not seeking ECM treatment for any of its initiatives as part of this Annual Review.

12.0 Reference: O&M EXPENSE

Exhibit B-2, Table 6-3, Section 6.2.1, p. 48; FBC 2023 Annual Review, Exhibit B-3, BCUC IR 11.1

Formula O&M Expense

On page 48 of the Application, FBC provides Table 6-3 showing the System Operations, Integrity and Security New/Incremental Spending in each category for 2022 Formula O&M, 2022 Actual O&M and the Cumulative Forecast/Actual Variance. The table provides the cumulative variance for 2020, 2021 and 2022 of $0.750 million.

Further, on page 48 of the Application, FBC states:

> For tree management, FBC spent $0.352 million more than the formula amount to address an increased number of unhealthy trees as part of FBC's right-of-way management program.
>
> For cyber security, FBC spent $0.176 million more than the formula amount. The higher spending was for additional consulting resources in the following areas: an additional consulting resource to augment cybersecurity requirements due to additional threat management needs; emergency management consulting for emergency exercises; physical security threat intelligence services to manage security risk; and the use of consulting services to update the business continuity program.
>
> For the first three years of the MRP, FBC spent $0.750 million more than the formula amount. Over the term of the MRP, FBC anticipates the total new/incremental spending required in the combined categories of System Operations, Integrity and Security will continue to be higher than the amount embedded in the formula. FBC will continue to manage this spending within its overall O&M spending envelope.

In response to BCUC IR 11.1 in the FBC 2023 Annual Review proceeding, FBC stated:

> FBC expects that some of the above-described O&M categories, and in particular, tree and vegetation management, will likely continue to experience higher-than-formula spending, as these activities are critical to system reliability and safety. However, over the MRP term, FBC will continue to manage this total/new incremental spending within its overall formula O&M spending envelope.

12.1 Please discuss, by O&M category, the major economic and/or operational driver(s) that have caused System Operations, Integrity and Security spending to consistently remain at levels in excess of the O&M formula amount for each year of the MRP term.

Response:

The two categories that have been consistently higher than the formula amounts during the first three years of the MRP term are Tree Management and Cyber Security. FBC provides the following explanation of the factors that have contributed to the higher spending to date.

Tree Management

The increased spending has primarily been due to the need to address an increased number of unhealthy trees as part of FBC's right-of-way management program.

Tree management activities are needed to protect the system from danger trees and other vegetation issues. The challenges that FBC is facing with tree management are not unique to FBC's system and are being experienced in other jurisdictions due to factors such as an increase in the number and prevalence of hazardous trees.

In response, FBC has been working to address this risk with a focus on safety and reliability. Vegetation management directly impacts compliance with the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) and the safety of workers responding to incidents and maintaining the system. Storms and non-predictive vegetation related outages remain a key predictor for reliability. While many outages are significant and result in large scale responses, many single tree outages directly impact FBC's operating program.

This work has been supported by switching permits carried out by operations staff. FBC plans in the future to further investigate the challenges posed by green trees falling on the powerline that are not easily identifiable as hazards. Further, FBC has a targeted program to increase hazardous tree removal on three transmission lines that have a relatively higher frequency of tree contacts.

Cyber Security

The increased spending in Cyber Security has been for activities to enhance FBC's cyber security and business continuity programs. Activities include building out the governance and controls for operational technology in response to increasing cyber threats on operational systems, utilizing physical security threat intelligence services to manage security risks, and updating the Company's business continuity plans for each business area in response to opportunities for improvement identified as well as to improve overall resiliency.

Responding to and mitigating evolving cyber security threats due to elements such as state sponsored hackers, special interest hacktivists, commercially available cyber-attack tools, and other means by which bad actors' capabilities are enhanced, requires adapting and changing tools and resources. To appropriately mitigate cyber security risk to FBC, FBC has incurred incremental cost increases in recent years that are anticipated to continue, as the threat landscape is expected to continue to evolve.

12.2 Please provide further details on FBC's need to hire additional consulting resources for cyber security activities. As part of the response, please discuss whether FBC could have utilized internal resources for such activities and whether this would have resulted in cost savings.

Response:

FBC uses a combination of consultants and internal resources to perform the tasks required to actively monitor and protect its systems. FBC uses consultants to provide real time industry experience and knowledge that internal resources would not have the capacity to monitor. A majority of the cyber security consulting firms engaged by FBC have global cyber security teams that monitor for threats specific to FBC 24 hours a day, seven days a week, 365 days a year. The consultants work closely with FBC staff and pass on relevant knowledge. This is more cost effective and lower risk than broader training for internal resources, as it focuses on the highest priority responses to current threats. FBC considers the balance of specialized cyber security consultants and internal resources is the most cost effective and reliable approach to appropriately mitigate cyber security risk to FBC.

13.0 Reference: O&M EXPENSE

Exhibit B-2, Section 6.3.1, p. 50

Pension and Other Post Retirement Benefits (OPEB) Expense

On page 50 of the Application, with reference to the variance between 2024 Forecast and 2023 Approved pension and OPEB expense, FBC states that there was an "approximate increase of $0.8 million in interest costs due to an increased discount rate, which is determined with reference to the market rate of interest on high-quality debt instruments at a point in time (a discount rate of 4.50 percent was used to determine the 2023 Approved expense compared to a discount rate of 5.25 percent used to determine the 2024 Forecast expense)."

13.1 Please provide the source of the market rate of interest on high-quality debt instruments used to estimate the interest costs for both the 2023 Approved expense and 2024 Forecast expense. As part of the response, please explain why FBC considers this source to be a reliable indicator of discount rates.

Response:

FBC's actuarial service provider, Willis Towers Watson (WTW), independently provides the market rate of interest on high-quality debt instruments. WTW uses its own model, "link zero-coupon yield curve", to generate the recommended discount rate and compares it to the Fiera Capital yield curve.

The WTW yield curve model incorporates information and data made available by certain third parties, including (but not limited to): Bloomberg LP, CRSP, MSCI, FactSet, FTSE, FTSE NAREIT, FTSE RAFI, Hedge Fund Research Inc., ICE Benchmark Administration (LIBOR), JP Morgan, Markit Group Limited, Russell, and Standard & Poor's Financial Services LLC.

The Fiera Capital yield curve is used by the Canadian Institute of Actuaries as discount rate guidance.

FBC considers these sources to be the best available data as they provide a discount rate that is independently determined using supportable inputs from third parties that are verifiable.

E. RATE BASE

14.0 Reference: RATE BASE

Exhibit B-2, Section 7.3, p. 57; FBC 2023 Annual Review, Exhibit B-2, Section 7.3, p. 66

Major Projects Capital Expenditures – Corra Linn Dam Spillway Gates Project

On page 57 of the Application, FBC states: "The [Corra Linn Dam Spillway Gates Replacement] final project cost is expected to be $80.835 million, inclusive of AFUDC and removal costs."

On page 66 of the FBC 2023 Annual Review application, FBC stated: "The [Corra Linn Dam Spillway Gates Replacement] project is expected to be complete in 2022 at a cost of $79.727 million, inclusive of AFUDC and cost of removal. "

14.1 Please explain the factors that have led to an increase in the final project cost for the Corra Linn Dam Spillway Gates Replacement Project.

14.1.1 Please confirm, or explain otherwise, that the scope of the project did not change.

Response:

The increase in the total forecast project cost of approximately $1.1 million is due to project schedule delays and some additional costs resulting from the amended Concealed Component Mitigation Strategy agreement. These additional costs were reported in the Q4 2022 progress report to the BCUC.

FBC confirms that there has been no change to the project scope. In the most recently filed quarterly progress report (i.e., the Q2 2023 progress report), FBC reported that the electrical repowering of the spillway gate is complete and that the remaining work onsite includes minor electrical work, installation of the hoist cart enclosures, and defect correction work.

15.0 Reference: RATE BASE

Exhibit B-2, Section 7.6, pp. 62–70

PST Rebate Deferral Account

On pages 69 to 70 of the Application, FBC states:

> The BC PST [British Columbia Provincial Sales Tax] Rebate on Select Machinery and Equipment is a provincial government program to help corporations recover from the financial impacts of the COVID-19 pandemic. Eligible businesses can receive as a rebate the PST paid on purchases of specified equipment and software during the qualifying period between September 17, 2020 and March 31, 2022. [*Emphasis added*]
>
> FBC is eligible to claim a BC PST Rebate on Select Machinery and Equipment on capital purchases of software and equipment and has filed for these rebates for the qualifying periods as set out by the Province of BC. To date, FBC has received $0.029 million ($0.021 million after-tax) in rebates and expects additional rebates of approximately $0.562 million ($0.410 million after-tax) to be received by December 31, 2023.
>
> FBC is requesting approval to establish a rate base deferral account to capture the PST Rebates on Select Machinery and Equipment received from the Province of BC. Further, FBC is proposing to amortize these rebates to customers over one year beginning January 1, 2024, to match the approximate qualifying period of eligible PST paid on purchases.

15.1 Please discuss whether the PST rebate deferral account could have been proposed in an earlier Annual Review application. If not, please explain why not.

Response:

At the time of last year's annual review, FBC was in the process of submitting the PST rebate applications to the BC Ministry of Finance but had no clarity on the timing of when the applications would be reviewed by the Ministry and, ultimately, whether some or all of the rebates would be granted. For context, there are no defined timelines provided by the BC Ministry of Finance on the review and approval of PST rebate applications. Had FBC been given some indication that the Ministry was expecting to issue any of the rebates in 2022, FBC would have requested approval of the deferral account in the Annual Review for 2023 Delivery Rates. However, this was not the case, and as explained further in the response to BCUC IR1 15.9, FBC did not receive approval of its first rebate application until May 30, 2023. As such, the first opportunity to request the deferral account was in the current Application.

On pages 62 to 63 of the Application, FBC states:

> In the absence of a deferral account, the rebate would be recorded as an offset in the applicable accounts where the original PST costs were recorded, whether those accounts were O&M or capital. FBC considers this to be a less transparent way of recording the rebates as it is the cost-of-service impacts of the amounts credited to capital that would be returned to customers over a longer timeframe, rather than the rebate amount itself over one year as proposed using the deferral account approach.

15.2 Please explain why FBC considers the use of a PST rebate deferral account to be more "transparent" than the alternative approach discussed on pages 62 to 63 of the Application. Please discuss if the level of transparency would differ depending on whether the original PST costs were for O&M or capital costs.

Response:

The recording of the BC PST on Select Machinery and Equipment (BC PST SME) rebates in a deferral account is more transparent because it allows the BCUC and interveners to see the total amount of PST rebates received and flowed back through rates, as the amortization of the $0.431 million rebate (after-tax) is reflected as a standalone amount in Section 11, Schedule 11, Line 30, Column 6 in the Application.

Under the alternative approach discussed on pages 62 to 63 of the Application, the PST rebates would be recorded back to either O&M or capital, depending on where the original PST costs were recorded. In both cases, the recording of the PST rebates would not be visible to the BCUC or interveners in the Application as the amounts would not be shown separately in the financial schedules provided in Section 11.

Further, in the case of PST credited back to capital, the PST rebates would be returned to customers over the expected service life of the assets through depreciation, earned return, and income tax, instead of over one year as proposed using the deferral account approach. This is the "longer timeframe" referenced in the Application and is referring to the expected service life of the capital assets where the original PST costs were recorded. FBC is not able to precisely quantify the longer timeframe, as it can range depending on the expected service life of the capital assets. For example, if the original PST costs were related to capital assets that have an expected service life of 20 years, then the PST rebates would be credited back to the capital assets and would be returned back to customers over a 20-year period through depreciation (plus the associated earned return and income tax of the capital assets).

An additional complexity of the alternative approach is that, if some or all of the original PST costs were related to O&M or capital expenses that were subject to the earnings sharing mechanism, the rebates would also be subject to earnings sharing and only returned 50 percent to customers. As such, FBC considers it simpler and more transparent to flow the full amount of the PST rebates back to customers through the use of the requested deferral account.

Regardless of whether the original PST costs were from O&M or capital costs, recording the PST rebates back to the applicable O&M or capital expenses instead of recording the full rebate amount in the proposed deferral account would be less transparent. There would potentially be slightly more transparency if the original PST costs were only related to O&M, as the impact of the rebates would be isolated to just the specific O&M accounts (as opposed to with capital where the impact would be spread over the cost of service components of capital – i.e., depreciation, earned return and income tax). However, there would also be the complexity that potentially some or all of the original PST costs could be subject to the earnings sharing mechanism, and this complexity would be an issue regardless of whether the PST costs were for O&M or capital.

15.3 Please quantify the “longer timeframe” noted on pages 62 to 63 of the Application as it relates to the specified software and equipment which are eligible for the BC PST Rebate (i.e. what the useful life of the underlying capital assets is).

Response:

Please refer to the response to BCUC IR1 15.2.

15.4 Please compare the administrative costs associated with the proposed deferral account approach versus the alternative approach discussed on pages 62 to 63 of the Application.

Response:

The administrative impact of the alternative approach compared to the proposed deferral account approach would be related to the additional labour and effort required by existing FBC staff. This would not likely cause increased costs (though potentially there could be some overtime costs incurred if applicable) because the FBC staff would need to take on this additional work in addition to their existing responsibilities.

The use of a deferral account would require less administrative labour as the total rebate received would be recorded to one account and returned to customers over one year, whereas the alternative approach would require additional administrative labour to determine the original source of each individual PST cost that was associated with machinery and equipment and to credit the PST amounts back to those original sources. The latter option would also be onerous to determine the all-in impact to customers over the cumulative lives of the assets, should that amount ever need to be determined.

15.5 Please provide a breakdown of the PST rebates between the PST rebates associated with O&M costs and the PST rebates associated with capital costs.

Response:

Please refer to Table 1 below for the breakdown of the forecast BC PST SME rebates of $0.591 million ($0.431 million after-tax) between O&M and Capital.

Table 1: Breakdown of the Forecast BC PST Rebates on Select Machinery and Equipment

	To Date of Application	Forecast to December 31, 2023	Total
Capital	$0.019 million ($0.014 million after-tax)	$0.374 million ($0.273 million after-tax)	**$0.393 million ($0.287 million after-tax)**
O&M	$0.010 million ($0.007 million after-tax)	$0.188 million ($0.137 million after-tax)	**$0.198 million ($0.144 million after-tax)**
Total	**$0.029 million ($0.021 million after-tax)**	**$0.562 million ($0.410 million after-tax)**	**$0.591 million ($0.431 million after-tax)**

On page 66 of the Application, FBC states: "FBC expects to return the rebates over the same period of time as the qualifying period to make the PST rebate claims. There are no intergenerational inequities in this practice."

15.6 Please confirm, or explain otherwise, that the PST rebates were earned over the entirety of the qualifying period of September 17, 2020 and March 31, 2022 noted on pages 69 to 70 of the Application.

15.6.1 If confirmed, please discuss whether an amortization period of two years was considered given that the period of qualifying expenditures is approximately 1.5 years in length. Why or why not?

Response:

Confirmed. FBC has applied to receive the rebates for PST paid on all qualifying machinery and equipment during the entirety of the qualifying period from September 17, 2020 to March 31, 2022, as set out by the Province of BC.

FBC considered both one- and two-year amortization periods and determined that the difference in the rate impact between the two options, i.e., approximately 0.06 percent, was minimal. Therefore, and in consideration that the qualifying period falls between one and two years in length, FBC selected a one-year amortization period to allow for the funds to be returned to customers sooner.

15.7 For the PST rebates related to capital expenditures, please explain how the proposed one-year amortization period beginning January 1, 2024 would match the expected timeframe of the benefits of the underlying asset (i.e. the expected service life of the capital asset(s)).

Response:

The proposed one-year amortization period is not designed to match the expected timeframe of the benefits of the underlying assets (or the expected service life of the capital assets). As explained in the responses to BCUC IR1 15.2 and 15.6, the proposed deferral account approach with a one-year amortization period is appropriate and reasonable as it ensures the return of the PST rebates back to customers in a timely and transparent manner. If the amortization of the rebate is to match the expected service life of the underlying capital assets, as suggested by this IR, then some of the PST rebates might not be fully returned to customers for at least 20 years or more, depending on the expected service life of the individual asset classes.

On page 64 of the Application, FBC states: "The final amount of PST rebates claimed by FBC are subject to approval by the Province of BC."

15.8 Please describe the approval process for the PST rebates (i.e. provide the time spent by FBC personnel on preparation of an application, length of time between application's filing and receipt of funds, etc.).

Response:

After receipt of FBC's BC PST SME rebate application, the BC Ministry of Finance is responsible for reviewing and approving the application. There are no defined timelines regarding the completion of their review as this was a special BC rebate program. Furthermore, the BC Ministry of Finance was delayed in their response due to processing the high volume of rebates coming out of the COVID-19 pandemic.

As part of the approval process, the BC Ministry of Finance audits the rebate claims. The BC Ministry of Finance will verify FBC's documentation, including invoices, proof of payment, examination of tax returns, and journal entries. The time between filing of the application and payment for the three rebate claims has varied significantly. Please refer to the response to BCUC IR1 15.9 for the date that each rebate application was filed and the dates that the rebates have been received. To date, FBC's time spent to prepare the rebates and respond to the audit queries totaled approximately 50 hours.

15.9 Please complete the following table for PST rebates:

		To Date of Application	Forecast by December 31, 2023
Applied for	Date		
	Amount ($)		
Received	Date		
	Amount ($)	$0.029 million ($0.021 million after-tax) actual	$0.562 million ($0.410 million after-tax) forecast
Percentage Approved*			

* Please calculate this percentage as: Amount Received ($) / Amount applied for ($)

<u>Response:</u>

FBC has submitted three BC PST SME rebate claims, one on May 16, 2022, and two separate applications on August 10, 2022. Please refer to Table 1 below for the details of each application as requested. In summary, FBC has currently received approval of two of the PST rebate applications (and has received the rebates). FBC is forecasting to receive the PST rebates from the third application by December 31, 2023.

Table 1: BC PST SME Rebate Applications

		To date of Application (August 4, 2023)	Forecast by December 31, 2023
BC PST SME Rebate Application #1			
Applied for	Date	May 16, 2022	
	Amount ($)	$0.101 million ($0.074 million after-tax)	
Received	Date		July 25, 2023[10]
	Amount ($)		$0.085 million ($0.062 million after-tax)
Percentage Approved			83.5%

[10] The forecast addition in the deferral account includes the amount applied for of $0.085 million, not the actual amount received. Due to the timing of when the actual rebates were received (i.e., July 25th), FBC was not able to update the deferral account amount in the Application before filing the Application on August 4th.

		To date of Application (August 4, 2023)	Forecast by December 31, 2023
BC PST SME Rebate Application #2			
Applied for	Date	August 10, 2022	
	Amount ($)	$0.033 million ($0.024 million after-tax)	
Received	Date	May 30, 2023	
	Amount ($)	$0.029 million ($0.021 million after-tax)	
Percentage Approved		86.3%	
BC PST SME Rebate Application #3			
Applied for	Date	August 10, 2022	
	Amount ($)	$0.461 million ($0.336 million after-tax)	
Received	Date		Not yet received but forecast to be received before December 31, 2023
	Amount ($)		Forecast $0.461 million ($0.336 million after-tax)
Percentage Approved			Approval Pending

As shown in Table 1 above, at the time of the Application, FBC projected a total of $0.591 million or $0.431 million after-tax (i.e., $0.029 million already received on May 30, 2023 plus the $0.562 million applied for) of PST SME rebates to be added to the deferral account by December 31, 2023. At this time, FBC is not proposing to change the 2023 Projected additions to this deferral account using the actual PST rebates received on July 25, 2023. Any variances between the projected and forecast account balances and the actual incurred costs will be recognized in the following year.

15.10 For the PST rebates of $0.029 million that FBC has received to date, please discuss how this amount is currently being recorded.

15.10.1 If any amounts were received prior to January 1, 2023, please discuss how these amounts were recorded.

<u>Response:</u>

FBC did not receive any rebates prior to January 1, 2023; the first rebate was received on May 30, 2023. Please refer to the response to BCUC IR1 15.9 for further details. FBC is proposing to record all rebates, including the $0.029 million (after-tax amount of $0.021 million), in the proposed deferral account.

15.11 Please discuss whether the percentage of PST rebates applied for and subsequently received to date would result in forecastable PST rebate amounts for 2024.

Response:

FBC is projecting to receive rebates from all three of the applications that it has filed before the end of 2023; thus, FBC has not forecast any PST rebate amounts for 2024. However, as explained in the response to BCUC IR1 15.9, the variances between the actual rebate amounts received and the amounts projected for 2023 in the deferral account will be recognized through amortization in a subsequent year (i.e., amortized in 2025 rates).

15.12 Please confirm whether FBC expects to receive any PST rebates after December 31, 2023. If confirmed, please state the dollar value of PST rebates expected after December 31, 2023 and explain how this would or would not affect the PST rebate deferral account.

Response:

Please refer to the response to BCUC IR1 15.11.

15.13 If the proposed PST rebate deferral account were not approved, please discuss how the 2023 rebates would be treated and quantify the impact, if any, on the 2024 revenue requirement and proposed rate increase.

Response:

If the proposed PST rebate deferral account is not approved, the 2024 proposed deficiency will increase by approximately $0.609 million and the proposed rate impact will increase by approximately 0.14 percent, from 4.83 percent to 4.97 percent.[11]

[11] Before consideration of the changes to FBC's return on equity and capital structure resulting from the recently issued Generic Cost of Capital (GCOC) Stage 1 Decision and Order G-236-23.

For the treatment of the 2023 rebates if the deferral approach is not approved, as discussed in the response to BCUC IR1 15.2, the PST rebates would be recorded as a credit to either O&M or capital, depending on the original PST costs. The treatment would be as follows:

For O&M-related PST:

- If the PST rebates are related to formula O&M amounts, then the portion of the 2023 actual rebates that is to be shared with customers under the current earnings sharing mechanism will be returned to customers through rates in 2025 through amortization of the Earnings Sharing deferral account.
- If the PST rebates are related to flow-through O&M amounts, then the 2023 actual rebates will be captured in the Flow-through deferral account in 2023 and returned to customers in 2025 through amortization of the Flow-through deferral account.

For capital-related PST:

- The 2023 actual rebates will be recorded as credits to the associated capital assets, and then the related cost of service impact (i.e., depreciation, income tax and earned return) will be returned to customers through rates. However:
  - If the PST rebates are related to regular capital, then the 2023 and 2024 cost of service impact due to the PST rebates will be subject to the earnings sharing mechanism with the portion shared with customers to be returned in 2025 and 2026, respectively, through amortization of the Earnings Sharing deferral account.
  - If the PST rebates are related to flow-through capital, then the 2023 and 2024 cost of service impact due to the PST rebates will be fully returned to customers in 2025 and 2026, respectively, through the Flow-through deferral account.

16.0 Reference: RATE BASE

Exhibit B-2, Section 7.6, pp. 62, 70, 71

BC Cost of Living Credit Deferral Account

On page 70 of the Application, FBC states:

> FBC received a total of $23.816 million and applied $23.290 million of credits to all eligible customers as of March 10, 2023. In addition to the bill credits applied to eligible customers, FBC has committed to provide credits to customers if/when a customer inquires about such credits to FBC (and if the customer is determined to be eligible. Between March 10, 2023 and May 31, 2023, FBC received a total of six inquiries (three residential and three commercial customers), resulting in a further $0.019 million of credits applied. The total credits applied to eligible customers as of June 10, 2023 are therefore $23.309 million, with <u>$0.507 million ($0.370 million after-tax) of residual credits</u> which FBC proposes to include as a credit amortization (i.e., return to all customers) in 2024 rates. [*Emphasis added*]

> FBC requested and received confirmation from the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) that there is no expectation or requirement for FBC to return the residual credits to either BC Hydro or the Province of BC. Furthermore, <u>EMLI agreed that the remaining funds could be used to benefit all FBC customers through rates, which is consistent with the purpose of the bill credits</u>. As such, FBC is requesting approval in this Application to establish a rate base deferral account to capture the residual balance of the BC Cost of Living Credit and to amortize the residual credits to customers through rates over a one-year period beginning January 1, 2024. [*Emphasis added*]

16.1 Please discuss whether, to FBC's knowledge, EMLI has communicated the same agreement that "the remaining funds could be used to benefit all FBC customers through rates, which is consistent with the purpose of the bill credits" to other BC utilities who received the BC Cost of Living Credit.

<u>Response:</u>

FBC is not aware if EMLI has been in communication with other BC utilities who received the BC Cost of Living Credit in regard to any remaining funds. FBC reached out to EMLI when FBC was preparing the current Annual Review for 2024 Rates Application, as FBC wanted to ensure that its proposed approach was acceptable to EMLI.

16.2 Please confirm whether there is a legal deadline after which customers can no longer claim the BC Cost of Living Credit.

16.2.1 If confirmed, please provide the deadline and explain how this relates to the proposed timelines for the BC Cost of Living Credit deferral account.

16.2.2 If not confirmed, please explain how future claims would be reflected in the proposed BC Cost of Living Credit deferral account or otherwise.

Response:

OIC 571/2022 does not include a deadline after which customers can no longer claim the BC Cost of Living Credit. As noted on page 70 of the Application, FBC has agreed with EMLI that FBC will continue to field inquiries from customers and provide any credits to eligible customers. These issued credits will be recorded in the proposed deferral account and will be amortized into FBC's rates in the following year (assuming the proposed one-year amortization period of the deferral account is approved). For clarity, FBC is proposing to amortize the residual credit of $0.507 million ($0.370 million after-tax) into rates in 2024, and if there are any new eligible credits issued after the date of this Application (thus not captured in the forecast amount of $0.507 million), the value of these credits issued to customers will be recorded as a debit in the deferral account and will subsequently be amortized into rates in 2025.

However, FBC is anticipating that, while there might be a few inquiries over the reminder of 2023, there is unlikely to be any inquiries in 2024. As noted on page 70 of the Application, FBC only received a total of six inquiries between March 10, 2023 and May 31, 2023, and, as of the date of filing these IR responses, there have been no further inquiries. As such, the remaining balance in the deferral account due to new inquiries is expected to be minimal since each eligible residential credit is $100.

In the next rate-setting proceeding (i.e., for 2025 rates), depending on the number of inquiries received and the number of eligible credits issued, FBC will propose if the deferral account should remain open in 2025 or should be eliminated and fully amortized in 2025.

On pages 70 to 71 of the Application, FBC states: "If there is any remaining balance (credit or debit) at the end of 2024, FBC will amortize the remaining balance into rates in the subsequent year (i.e., 2025)."

16.3 Please clarify the dates over which the BC Cost of Living Credit deferral account would be amortized.

Response:

Please refer to the response to BCUC IR1 16.2.

On page 62 of the Application, FBC states:

> In the absence of a deferral account, the credit would remain in an FBC liability account until the residual balance is distributed through inquiries. FBC does not expect there will be enough inquiries to distribute the total residual balance. Eventually, the residual balance would be recorded as income, and FBC would need to request a method of returning that income to customers, either via the Flow-Through deferral or by including the amount in its revenue requirements. The use of a deferral account permits the remaining credits to be used to benefit all customers, in a timely and efficient manner, consistent with the purpose of the credit. [*Emphasis added*]

16.4 Please elaborate on how the BC Cost of Living Credit deferral account would result in more "timely and efficient" use of the remaining credits than the alternative methods discussed on page 62 of the Application (i.e. the Flow-Through deferral or by including the amount in its revenue requirements).

16.4.1 Please explain the timelines for return of the credit balance to customers under each of the two alternatives

Response:

As noted on page 62 of the Application and referenced in the preamble, in the absence of the BC Cost of Living Credit deferral account, the residual credit will remain in an FBC liability account (net of any new eligible issued credits) until the end of 2023, and then the balance in the liability account would be transferred to income. FBC would then, as part of the rate-setting proceeding for 2025 rates, request to return this income to customers, either through the Flow-through deferral account or as a separate line item in FBC's 2025 revenue requirement. In both cases, the earliest that the remaining credit would be returned to customers is in 2025.

The proposed BC Cost of Living Credit deferral account will ensure the entire remaining credits are provided to customers through rates in 2024, which will be one year earlier than the alternative approaches.

16.5 Please explain why the alternative methods discussed on page 62 of the Application would not permit "the remaining credits to be used to benefit all customers".

Response:

FBC clarifies that the statement referenced in the preamble above was meant to imply that the deferral account approach, while providing benefits to all customers, would also be the most timely and efficient method to return those amounts to customers. Using the alternative approaches would still result in the benefits being returned to all customers but would be less timely and efficient.

16.6 Please compare the administrative costs associated with the proposed deferral account approach versus the alternative approaches discussed on page 62 of the Application.

Response:

The alternative approaches may have a minor additional administrative impact compared to the proposed deferral account approach because the alternative approaches may require additional labour effort by FBC staff. As FBC's existing staff would need to take on this additional work in addition to their existing responsibilities, there would be no additional administrative cost.

FBC notes, however, that the difference in administrative effort is not the primary reason for the proposed deferral account. The most notable benefit is that the credits will be flowed to customers in the most timely and efficient manner.

16.7 If the proposed BC Cost of Living Credit deferral account were not approved, please quantify the impact, if any, on the 2024 revenue requirement and proposed rate increase.

Response:

If the proposed BC Cost of Living Credit deferral account was not approved and the alternative approach did not result in the credits being flowed to customers as part of the 2024 revenue requirement, the forecast 2024 revenue deficiency would increase by approximately $0.711 million to $21.385 million, and the impact on proposed 2024 rates would be an increase of 0.17 percent, from 4.83 percent to 4.99 percent.

To clarify, if the BC Cost of Living Credit was approved as a 2023 flow-through item and projected into 2024 rates, there would be no impact on 2024 rates between this approach and the proposed deferral account approach. However, if the amounts were not included in the 2023 Projected flow-through calculation and instead were included as 2024 actual amounts at the time that the 2025 rate application was prepared, the credits would not be flowed to customers until 2025 (i.e., the credits would be included as part of 2025 rates).

17.0 Reference: RATE BASE

Exhibit B-2, Section 7.6, pp. 62–71; FBC 2021 LTERP, Decision and Order G-380-22, pp. 65, 69; FortisBC Energy Inc. and FortisBC Inc. Multi-Year Rate Plan Application for 2020 to 2024 (FortisBC MRP 2020-2024), Decision and Orders G-165-20 and G-166-20, p. 73

Climate Change Operational Adaptation (CCOA) Plan Deferral Account

On page 71 of the Application, FBC states:

> As discussed in FBC's most recent Long Term Electric Resource Plan (2021 LTERP) accepted by Order G-380-22, the threat that climate change presents to FBC infrastructure and operations is a continuing reality that FBC is taking seriously; accordingly, FBC is developing a roadmap for climate change adaptation. FBC's Climate Change Operational Adaptation (CCOA) Plan focuses on addressing the climate change risks associated with five hazards: wildfires, flooding, extreme temperatures, snowstorms, and windstorms. […]
>
> FBC is requesting approval to establish a rate base deferral account to capture the costs related to the CCOA Plan. <u>FBC forecasts costs of $0.225 million ($0.164 million after-tax) in 2023 and a further $0.192 million ($0.140 million after-tax) in 2024</u>. The costs are primarily related to the resources required to develop the roadmap for climate change adaptation and, stemming from the roadmap, develop the business cases for the five key hazard areas (i.e., wildfires, flooding, extreme temperatures, snowstorms and windstorms). FBC is proposing to amortize these costs over four years beginning January 1, 2024. This period aligns with the CCOA Plan timeline discussed in the 2021 LTERP, which states that the development of the CCOA Plan and subsequent <u>business cases</u> would occur between now and 2027. FBC will continue to provide updates on the progress of the CCOA Plan and the deferral account in future annual reviews or revenue requirement applications. [*Emphasis added*]

17.1 Please discuss whether the CCOA Plan deferral account could have been proposed in an earlier Annual Review application. If not, please explain why not.

<u>Response:</u>

FBC has become increasingly aware of the threats that climate change present to its infrastructure and operations and has been investigating how to assess and respond to these threats. However, FBC did not consider it appropriate to request the CCOA Plan deferral account in previous years' annual reviews because, with few exceptions, FBC's efforts prior to 2023 have largely been exploratory works undertaken by existing FBC employees (i.e., FBC's existing resources were managing the additional work as best as possible with their regular duties and responsibilities).

Planning has now developed to the point where FBC has had to engage external consultants and resources to support the climate change risk assessment process and activities. This is necessary to better understand how future conditions could affect FBC's assets, specifically related to the five hazards described in the Application (and in the 2021 LTERP), and to develop action plans based on these risk assessments. Accordingly, FBC only now requires the CCOA Plan deferral account to capture these incremental costs.

17.2 Please clarify the costs incurred to date for the CCOA Plan, if any. Please provide a breakdown of these costs by year if the costs have been incurred over more than one year.

17.2.1 Please explain how costs incurred to date have been recorded. Please explain why FBC is proposing to account for further CCOA Plan costs in a CCOA Plan deferral account as opposed to the same methodology as used for the prior CCOA Plan related costs.

Response:

As explained in the response to BCUC IR1 17.1, the costs incurred prior to 2023 were undertaken by existing FBC employees under the formula O&M and were not separately tracked, thus a breakdown is not available.

For 2023 and 2024, as discussed on page 71 of the Application and referenced in the preamble above, FBC is forecasting to incur $0.225 million (before tax) and $0.192 million (before tax), respectively. These costs are primarily related to external resources, i.e., consultant costs, to develop the roadmap. The costs incurred to date as of July 2023 are $0.137 million.

17.3 Please elaborate on the CCOA Plan including (i) the time period covered by the CCOA Plan roadmap, (ii) how the CCOA Plan roadmap will be monitored or updated over time, and (iii) key personnel involved in creating the CCOA Plan roadmap.

Response:

As set out in the table below, FBC's Roadmap on Climate Change Adaptation covers the time period of 2023 to 2027. The roadmap defines the path towards identifying and managing the effects of climate change on FBC's system, and provides the overall structure for climate change adaptation.

The first step of the roadmap is the CCOA Plan, which covers the period of 2023 to 2024. The CCOA Plan work involves key internal personnel from across the Company, including from Asset Management, Engineering, Operations, Sustainability & Environment, Generation & System Operations, Regulatory, Legal, and PMO & Logistics.

The scope of the CCOA Plan consists of FBC working with consultants to identify assets vulnerable to each climate hazard type through completion of a climate change risk assessment (CCRA). FBC will then apply the results of the CCRA by identifying specific vulnerable assets and determining project alternatives, which will begin in 2024 once the CCRA is complete.

The deferral account expenditures in 2023 are for costs associated with the CCRA, and the deferral account expenditures in 2024 are for costs associated with the application of the results from the CCRA to FBC's specific vulnerable assets and determining project alternatives.

FBC will continue to provide updates on the progress of the CCOA Plan and the deferral account in future annual reviews or revenue requirement applications.

Year	2022	2023	2024	2025+
Initiative	Roadmap on Climate Change Adaptation	Climate Change Operational Adaptation (CCOA) Plan:		CCOA Plan for Specific Assets
Funding	Formula O&M	CCOA Plan Deferral Account		TBD
Description of activities included in the initiative.	**The roadmap lays out high level activities and steps for the 2023-2027 timeframe:** The roadmap provides the overall structure and approach for climate change adaptation. The first step identified in the roadmap is the CCOA Plan.	**Climate Change Risk Assessment (CCRA):** FBC is currently working with a consultant to complete the CCRA. The CCRA will define and assess what risks climate change will have on FBC's assets.	**Application of CCRA Results to FBC Assets:** FBC will apply the results of the CCRA by identifying specific vulnerable assets and determining project alternatives. FBC expects hazards for some assets may require further detailed studies before being ready for project alternatives.	**Develop mitigatory and adaptive measures for affected assets:** With the results applied to FBC's assets, FBC can develop plans to mitigate and adapt to increased risk due to changing climate effects. These mitigations and adaptations could include but are not limited to modification of design standards, design criteria, material specifications, system hardening or asset replacement. Where required, FBC will complete further detailed studies for hazards before developing specific mitigations and adaptations.

17.4 Please discuss whether any of the "business cases" that result from the CCOA Plan may operate or provide benefits over a period longer than the proposed four-year term that aligns to the FBC 2021 LTERP timeline.

Response:

Yes, the business cases will provide benefits beyond the proposed four-year term as the projects seek to mitigate and adapt the system to these climate hazards into the future.

17.5 Please discuss the level of detail FBC would provide in the "updates on the progress of the CCOA Plan and the deferral account in future annual reviews or revenue requirement applications" (i.e. qualitative progress made on the roadmap, costs incurred by business case, etc.).

Response:

FBC will provide updates on the progress of the CCOA Plan (including the CCRA), details on the balance of the CCOA Plan deferral account, and requests for additional funding beyond 2024 in FBC's next rate plan application, which FBC expects to file in Q1 of 2024.

17.6 Please discuss whether, to FBC's knowledge, other BC utilities are proposing or undertaking similar CCOA plans and have approved deferral accounts for such work.

Response:

FBC understands that BC Hydro is undertaking activities to address the threats of climate change on its system but is unaware of how BC Hydro is funding (or planning to fund) such activities. Regardless of how BC Hydro or other utilities propose to fund activities to address climate change, FBC expects that all utilities will need to address the threats of climate change and will seek funding to do so based on their unique circumstances and rate-setting regimes.

On page 65 of Decision and Order G-380-22 to the FBC 2021 LTERP proceeding, FBC states:

> FBC is proactively adapting to climate change related risks. FBC states that it is proactively developing a roadmap for climate change [adaptation], which it expects to be complete in Q4 2022. FBC is also developing a business case to assess

various mitigation strategies for wildfires and will be looking to develop business cases for flooding and extreme weather events in subsequent years.

On page 69 of Decision and Order G-380-22 to the FBC 2021 LTERP proceeding, it states: "FBC's roadmap on climate change adaptation is under development and FBC expects that it will be completed in Q4 2022."

17.7 Please confirm, or explain otherwise, that "FBC's roadmap on climate change adaptation" referenced on pages 65 and 69 of Decision and Order G-380-22 is the same as the "roadmap for climate change adaptation" referenced on page 71 of the Application.

17.7.1 If confirmed, please (i) explain why FBC indicated that the roadmap would be completed in Q4 2022 in the FBC 2021 LTERP proceeding whereas there are now forecast costs in 2023 and 2024 shown in this Application, (ii) quantify the costs incurred to Q4 2022, (iii) discuss how the costs incurred to Q4 2022 were accounted for and how and why that differs from the proposed deferral account treatment, and (iv) explain why FBC did not seek approval of the CCOA Plan deferral account when costs were first incurred in relation to the roadmap.

17.7.2 If not confirmed, please explain how these two roadmaps differ.

Response:

Confirmed. The initial version of the roadmap was completed in Q4 2022 and defines the path towards identifying and managing the effects of climate change on FBC's system, providing the overall structure for FBC's adaptation to climate change. The costs forecast in 2023 and 2024 through this request are for the first phase of the CCOA Plan, which consists of FBC working with consultants to identify assets vulnerable to each climate hazard type through completion of the CCRA. Please refer to the response to BCUC IR1 17.3 for a table depicting the relationship between these components of the work.

Please refer to the responses to BCUC IR 17.1 and 17.2 regarding the costs incurred prior to 2023 and the timing of FBC's request for the CCOA Plan deferral account.

On page 64 of the Application, FBC states:

> As a result of the ongoing impacts of global climate change, FBC has determined it is imperative to address the risks of climate change risk on its system. Therefore, although direct costs are within Management's control, the need to incur these costs is considered necessary.

On page 73 of Decision and Orders G-165-20 and G-166-20 to the FortisBC MRP 2020-2024 proceeding, the BCUC stated:

> Accordingly, to consider FortisBC's proposed changes in treatment of revenue requirement items subject to deferral mechanisms, the [BCUC] focuses on whether:
>
> - the item is reasonably within the control of management; and
> - there is a high degree of forecast uncertainty associated with the item.
>
> If the item is reasonably controllable and forecastable then it should form part of the incentive feature of the multi-year performance-based framework. If the Utilities have limited control over the item or there is a high degree of forecast uncertainty, they should not bear the risk of forecast variances. In the latter case, establishment of some form of deferral mechanism is appropriate.

17.8 Please discuss the degree of management control FBC has over the CCOA Plan forecast costs of $0.225 million in 2023 and $0.192 million in 2024.

<u>Response:</u>

FBC notes that the section of the MRP Decision referenced in the preamble was related to whether certain items should be approved for flow-through treatment in the 2020-2024 MRP which were previously treated as formula O&M items in the 2014-2019 PBR Plan term, including, among others, the cost of integrity digs and variable LNG O&M, as well as changes to certain deferral accounts. The purpose of making these requests as part of the MRP Application was that, based on the Panel's determinations, the costs would either be assigned as formula or flow-through, and if flow-through, the variances would either be included in the Flow-through deferral account or a different deferral account (e.g., in the case of the BCUC levies, FBC was approved to treat the levies as flow-through in the MRP and record the variances in levies in a separate deferral account).

In the case of the CCOA Plan costs, the reason that FBC is requesting a deferral account for the 2023 and 2024 costs is not because the quantum of costs are highly uncertain or outside of management's control for 2023 and 2024; the reason is that the costs are being driven by the need to address climate threats, and the pace (i.e., urgency) of the need to address the threats is largely driven by factors outside of FBC's control. Further, these costs, as explained in the Application, are not internal costs (FBC has been absorbing the internal costs within its formula O&M). Instead, the costs are related to external resources which are now required due to the stage of the CCOA Plan development. At the time that FBC developed the MRP Application, the need and urgency to address climate related issues was not known and, as a result, not contemplated within the current MRP. However, as part of FBC's upcoming rate plan application in 2025, issues and planned responses to climate change will be an important consideration.

Given the above, FBC considers the requested treatment of the 2023 and 2024 forecasts costs to be reasonable and appropriate.

17.9 Please discuss the degree of forecast certainty FBC has over the CCOA Plan forecast costs of $0.225 million in 2023 and $0.192 million in 2024.

Response:

Please refer to the response to BCUC IR1 17.8.

On pages 62 to 63 of the Application, FBC states:

> In the absence of a deferral account, the costs would have to be forecast as an O&M expense (outside of the MRP index-based O&M, as the costs are not included in Base O&M Expense) and trued up annually by way of the Flow-Through deferral account. FBC considers this to be a more cumbersome and less efficient means of managing these costs. [*Emphasis added*]

17.10 Please elaborate on why the identified alternative on pages 62 to 63 of the Application (i.e. forecast O&M and Flow-Through deferral account) would be "more cumbersome" and "less efficient" than the proposed deferral account.

Response:

The alternative approach of recording the CCOA Plan expenditures as a flow-through O&M item may be slightly less efficient (and more cumbersome) and may have a minor additional administrative impact compared to the proposed deferral account. This is because the flow-through approach would require the actual expenditures to be captured in specific O&M accounts depending on the nature of the expense and then the variances between actual and forecast costs would be tracked separately as a flow-through O&M item within the financial schedules. In contrast, a specific deferral account would capture the total actual expenditures related to the CCOA Plan in a single account. The additional tracking and recording of expenses through the flow-through approach may require additional labour effort by FBC staff. As FBC's existing staff would need to take on this additional work in addition to their existing responsibilities, there would be no additional administrative cost.

17.11 Please compare the administrative costs associated with the proposed deferral account approach versus the alternative approach discussed on pages 62 to 63 of the Application.

Response:

Please refer to the response to BCUC IR1 17.10.

17.12 If the proposed CCOA Plan deferral account were not approved, please discuss how the forecast costs would be treated and quantify the impact, if any, on the 2024 revenue requirement and proposed rate increase.

Response:

If the proposed CCOA Plan deferral account was not approved, as highlighted in the preamble above, FBC would propose to include the costs as a forecast O&M item to be recovered through current year rates. The variance between the actual and forecast amounts each year would then be captured in the Flow-through deferral account and recovered from or returned to customers through rates in the following year.

As noted on page 71 of the Application, FBC is forecasting to incur $0.255 million (before tax) to the end of 2023 and a further $0.192 million (before tax) in 2024. Since the 2023 amount of $0.255 million was not forecast during the Annual Review for 2023 Rates, the full amount (net of tax) would be captured in the Flow-through deferral account and recovered from customers in 2024 or future rates through amortization. For the 2024 amount of $0.192 million, FBC would include this amount within its 2024 Forecast O&M, and the full amount would also be included in 2024 rates (as opposed to being amortized over a four-year period under the proposed deferral account treatment). Any variance from the 2024 forecast amount of $0.192 million and the 2024 actual amount would be captured in the Flow-through deferral account and returned to or recovered from customers in a future year.

The incremental impact from including the 2023 and 2024 costs in FBC's 2024 revenue requirement (i.e., removing the proposed CCOA Plan deferral account, amortizing the 2023 amount through the Flow-through deferral account in 2024, and including the 2024 forecast O&M amount within FBC's 2024 Forecast O&M), would be $0.364 million, which would increase the proposed 2024 rate increase from 4.83 percent to 4.90 percent.

F. FINANCING AND RETURN ON EQUITY

18.0 Reference: FINANCING AND RETURN ON EQUITY

Exhibit B-2, Section 8.3, Table 8-1, p. 76

Short-Term Interest Rate

On page 76 of the Application, FBC provides Table 8-1 showing the Short-Term Interest Rate Forecast as follows:

FBC Short Term Interest Rate	Approved 2023	Projected 2023	Forecasted 2024
3-Month T-Bill Rate [1]	3.14%	5.04%	4.27%
Spread to CDOR	0.36%	0.41%	0.41%
CDOR Rate	3.50%	5.45%	4.69%
Spread to CP	-0.36%	-0.47%	-0.47%
CP Dealer Commission	0.10%	0.10%	0.10%
ST Interest Rate on Credit Facilities	**3.24%**	**5.09%**	**4.32%**
Fixed Financing Fees [2]			
Standby fee on Undrawn Credit [3]	0.44%	0.24%	0.32%
Renewal Fee on Undrawn Credit	0.12%	0.07%	0.09%
Other Financing Fees	0.44%	0.34%	0.49%
ST Interest Rate on Fixed Financing Fee	**1.00%**	**0.64%**	**0.89%**
FBC Short Term Rate	**4.24%**	**5.73%**	**5.21%**

18.1 Given the variances in short-term interest rates between Approved 2023 and Projected 2023, please discuss whether FBC has considered alternative forecast methodologies for short-term interest rates. If so, please explain why those alternative methodologies were rejected. If not, please explain why not.

Response:

The primary reason for the large variance in the short-term interest rate for 2023 is the fact that FBC continues to operate in extraordinary economic conditions whereby the Bank of Canada has raised its target for an overnight rate 10 times since March 2022 to combat unprecedented inflation in Canada, with six of the increases occurring between FBC's filing of the Annual Review for 2023 Rates and the filing of this Application. This has significantly impacted the short-term interest rate for 2023.

Nonetheless, FBC considers the current methodology to be appropriate, supportable through economic forecasts received from major Canadian banks and historically consistent; therefore, FBC has not considered alternative forecast methodologies for short-term interest rates. In addition, the flow-through mechanism is used to capture variances caused by changes in the short-term interest rate, so differences between the approved/projected rates and the actual rates will be recovered from or returned to customers in a subsequent period.

18.2 Please discuss the impact to the 2024 revenue requirement and proposed rate increase under a change of +/- 1 basis point to the FBC Short-Term Rate of 5.21 percent forecast for 2024.

Response:

FBC interprets this information request to be looking for the impact of a +/- 100 basis point (i.e., 1 percent) change to the short-term debt rate, as a +/- 1 basis point (i.e., 0.01 percent) change would have almost no impact on FBC's 2024 revenue requirement and rate increase. Accordingly, please refer to Table 1 below which shows the impact to the 2024 revenue requirement and 2024 rate increase as a result of both a +/- 1 basis point and +/- 100 basis point change to FBC's 2024 forecast of the short-term debt rate of 5.21 percent, assuming all else being equal.

Table 1: Impact to FBC 2024 Revenue Requirement and Rate Increase with a +/- 1 and +/- 100 Basis Point Change

Short Term Debt Rate Change	+/- 1 Basis Point (i.e., +/- 0.01%)	+/- 100 Basis Point (i.e., +/- 1%)
Impact to 2024 Revenue Requirement ($ million)	+/- $0.01	+/- $0.936
Impact to 2024 Rate Increase (%)	No Change*	+/- 0.21%

**No change when rounded to two decimal places.*

FBC notes that as part of the BCUC's Decision and Order G-236-23[12] regarding Stage 1 of the BCUC-initiated Generic Cost of Capital (GCOC) proceeding, FBC is approved a deemed equity component of 41.0 percent, effective January 1, 2023. The increase to FBC's deemed equity percentage effectively reduces FBC's short-term debt component under FBC's capital structure; thus, the impact of varying +/- 1 or +/- 100 basis points to FBC's short-term debt rate of 5.21 percent would be less than the impacts shown in Table 1 above.

[12] Decision issued on September 5, 2023.

G. TAXES

19.0 Reference: TAXES

Exhibit B-2, Section 9.2, pp. 78–79

Property Taxes

On page 78 of the Application, FBC states: "In general, the 2024 [Property Tax] increase from 2023 Projected is due to construction activities, market value changes, and changes in tax policies of local taxing authorities."

On page 79 of the Application, FBC discusses the significant drivers of the forecast increase in Property Taxes including, among other things, changes in assessed values for distribution lines, transmission lines, generating facilities, substations, and offices.

19.1 Please provide the rationale for the expected increases or decreases in assessed values for each of the properties discussed on page 79 of the Application. As part of the response, please describe to what extent the changes in assessed values are attributable to construction activities, market value changes, changes in tax policies of local taxing authorities or all of the above.

<u>Response:</u>

FBC's forecast changes in assessed values are generally driven by combinations of increased construction activities, increases in underlying real estate markets and changes in taxation policy. Construction of new taxable assets within taxable property classifications increases the total value of FBC's assets within a classification in that jurisdiction. Increased prices in local real estate markets in jurisdictions served by FBC affect the value of utility assets and property in a similar fashion and similar magnitude as non-utility properties within the jurisdictions. Real estate market information from most FBC service areas indicate upward movement in real estate values leading to increased property assessments within those market areas. FBC, like all other utility operators within a taxing jurisdiction, are subject to policy changes made by taxing authorities as part of their budget setting cycles. Further, certain classifications of FBC's utility assets may be subject to changes made to provincial taxation assessment manuals, from time to time.

20.0 Reference: TAXES

Exhibit B-2, Section 9.3, p. 79, Section 11, Schedules 24 and 25; FBC 2023 Annual Review, Exhibit B-2, Section 11, Schedule 25

Income Tax

On page 79 of the Application, FBC states:

> Income tax for 2024 is forecast to increase by $4.002 million or 65.9 percent compared to 2023 Approved. The largest driver of the increase in 2024 is the lower income tax deductible through capital cost allowance (CCA) by approximately $2.849 million. The lower deductibility is partly due to reduced undepreciated capital cost (UCC) additions in higher rate CCA classes in the 2024 Forecast compared to 2023 Approved, and partly due to the phase-out of Canada's Accelerated Investment Incentive starting from 2024 (i.e., enhanced 50 percent first-year allowance to be phased out in 2024).

As part of Schedule 25 in Section 11 of the Application, FBC provides details of the 2024 Forecast Capital Cost Allowance balance, including Class 17 and 47 which have 2024 Additions & Opening Adjustments of $8.533 million and $64.669 million, respectively.

As part of Schedule 25 in Section 11 of the FBC 2023 Annual Review application, FBC provided details of the 2023 Forecast Capital Cost Allowance balance, including Class 17 and 47 which had 2023 Additions & Opening Adjustments of $22.036 million and $87.737 million, respectively.

20.1 In terms of Class 17 and Class 47, please describe the nature of additions included in both these classes for 2024. As part of the response, please explain the reason(s) for decrease in additions noted in both these classes in 2024, as compared to 2023.

Response:

The decrease in additions in both of these classes is due to lower CPCN additions in the 2024 taxation year.

In 2023, Class 17 included tax base capital of regular sustaining capital of $7.8 million and CPCN additions in relation to the Corra Linn Dam Spillway Gate Replacement Project of $14.2 million. Class 47 included tax base capital of regular sustaining capital of $58.6 million and CPCN/Major Project additions in relation to the Kelowna Bulk Transformer Additions and Playmor Station Upgrade of $29.1 million.

In 2024, Class 17 included tax base capital of regular sustaining capital of $7.6 million and CPCN additions in relation to the Corra Linn Dam Spillway Gate Replacement Project of $0.9 million. Class 47 included tax base capital of regular sustaining capital of $62.1 million and CPCN additions in relation to the Kelowna Bulk Transformer Additions of $2.6 million.

20.2 Please provide a calculation showing how FBC calculated the $2.849 million lower income tax deductible through CCA. As part of the response, from the total income tax increase of $4.002 million, please distinguish the approximate amount attributable to (i) reduced UCC additions in higher rate CCA classes and (ii) the phase-out of Canada's Accelerated Investment Incentive. Please include references to Schedules 24 and 25 as appropriate.

Response:

Please refer to Table 1 below for the calculation of the $2.849 million of increased income tax due to reduced CCA deductibles.

Table 1: Calculation of Increased Income Tax Expense resulting from Reduced CCA Deductibles

Line	Particular	Reference	Amount ($000s)
1	2023 Approved CCA Deductible	Section 11 - Schedule 24, Line 25, Column 2	89,602
2	2024 Forecast CCA Deductible	Section 11 - Schedule 24, Line 25, Column 3	81,899
3	**Reduction in CCA**	**Line 2 - Line 1**	**(7,703)**
4			
5	Increase in Accounting Income After Tax	-Line 3	7,703
6			
7	1 - Current Income Tax Rate	1 - Line 10	73%
8	Change in Taxable Income	Line 5 / Line 7	10,552
9			
10	Current Income Tax Rate	Section 11 - Schedule 24, Line 9	27%
11	**Increase in Income Tax Expense**	**Line 8 x Line 10**	**2,849**

As discussed on page 79 of the Application and referenced in the preamble above, the reduced CCA deductible is partly due to the phase-out of Canada's Accelerated Investment Incentive (AII) starting from 2024. Please refer to Table 2 below which shows the 2024 Forecast CCA calculation (i.e., in the same format as Section 11, Schedule 25 of the Application) if the AII remained in place for 2024. If there was no phase-out of AII starting in 2024, the 2024 Forecast CCA deductible would have been approximately $87.870 million, instead of $81.889 million as shown on Line 2 of Table 1 above.

Table 2: 2024 Forecast of CCA if AII Remained in Place for 2024 ($000s)

Line No.	Class	CCA Rate	12/31/2023 UCC Balance	2024 Additions	UCC Adjustments for AII	2024 CCA	Forecast 12/31/2024 UCC Balance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	1(a)	4%	$ 147,922	$ -	$ -	$ (5,916)	$ 142,006
2	1(b)	6%	33,070	3,010	1,505	(2,255)	35,330
3	2	6%	10,719	-	-	(643)	10,076
4	3	5%	616	-	-	(31)	585
5	6	10%	2	-	-	-	2
6	8	20%	3,538	833	417	(958)	3,830
7	10	30%	4,308	1,838	919	(2,120)	4,945
8	13	0%	11	-	-	-	11
9	14.1 (pre 2017)	7%	6,441	-	-	(451)	5,990
10	14.1 (post 2016)	5%	4,926	1,266	633	(341)	6,484
11	17	8%	161,210	8,533	4,267	(13,921)	160,089
12	42	12%	8,987	604	302	(1,187)	8,706
13	43.1	30%	477	-	-	(143)	334
14	46	30%	1,896	-	-	(569)	1,327
15	47	8%	530,216	64,669	32,335	(50,178)	577,042
16	50	55%	2,869	9,188	4,594	(9,157)	2,900
17							
18	Total		$ 917,208	$ 89,941	$ 44,971	$ (87,870)	$ 959,655

Table 3 below shows the calculation that if the AII remained in place for 2024, then the 2024 income tax expense would have been reduced by approximately $2.208 million. To clarify, approximately $2.208 million of the total income tax increase of $2.849 million is due to the phase-out of the AII while the remaining $0.641 million is due to the reduced UCC additions primarily in CCA classes 17 and 47 in the 2024 Forecast when compared to 2023 Approved. Please refer to the response to BCUC IR1 20.1 for further details about the reduced UCC additions in Class 17 and Class 47.

Table 3: Comparison of Increased Income Tax Expense for 2024 with and without AII for CCA

Line	Particular	Reference	Without AII - As Filed ($000s)	With AII - As Filed ($000s)	Income Tax Savings due to AII ($000s)
1	2023 Approved CCA Deductible	Table 1 of BCUC IR1 20.2, Line 1	89,602	89,602	-
2	2024 Forecast CCA Deductible	Table 1 of BCUC IR1 20.2, Line 2	81,898	87,870	(5,972)
3	**Reduction in CCA**	**Line 2 - Line 1**	**(7,704)**	**(1,732)**	**(5,972)**
4					
5	Increase in Accounting Income After Tax	-Line 3	7,704	1,732	5,972
6					
7	1 - Current Income Tax Rate	1 - Line 10	73%	73%	73%
8	Change in Taxable Income	Line 5 / Line 7	10,553	2,372	8,181
9					
10	Current Income Tax Rate	Table 1 of BCUC IR1 20.2, Line 10	27%	27%	27%
11	**Increase in Income Tax Expense**	**Line 8 x Line 10**	**2,849**	**640**	**2,208**

H. EARNINGS SHARING

21.0 Reference: EARNINGS SHARING

Exhibit B-2, Section 10, p. 81

Earnings Sharing Mechanism

On page 81 of the Application, FBC states:

> For 2024, FBC proposes to distribute a $2.396 million pre-tax credit ($1.749 million after-tax) to customers, comprised of:
>
> - The $1.749 million credit difference between the projected 2022 deferral account after-tax addition of zero embedded in 2023 rates, and the actual 2022 deferral account after-tax credit addition of $1.749 million as provided in FBC's 2022 Annual Report to the BCUC. This amount is also shown in the opening 2024 balance in the financial schedules in the Application.

21.1 Please discuss the driver(s) of the actual 2022 deferral account after-tax credit addition of $1.749 million.

Response:

Please refer to Table 1 below for the breakdown of the 2022 deferral account after-tax credit addition.

Table 1: Breakdown of the 2022 Earnings Sharing Deferral Account After-Tax Credit Addition

Drivers	Amount ($ million)
Index-Based O&M	$1.315
Depreciation/Amortization	$0.022
Other Revenues	$0.582
Interest Expense	$0.010
Income Taxes	($0.252)
Rate Base	$0.072
TOTAL (Credit)	**$1.749**

The main drivers of the variance (i.e., the credit addition) were savings in Index-based O&M and higher than forecast Other Revenues, which were partially offset by higher actual income taxes.

The index-based O&M savings are discussed in Section 1.4.1 of the Application. Other Revenues were higher than approved mainly due to higher actual contract revenues received. Income taxes were higher mainly as a result of higher actual sales revenue due to higher load than forecast.

I. SERVICE QUALITY INDICATORS

22.0 Reference: SERVICE QUALITY INDICATORS (SQIs)

Exhibit B-2, Section 13.2.2, pp. 125, 127–129

Responsiveness to Customer Needs SQI Results

On page 125 of the Application FBC states that the reduction in First Contact Resolution (FCR) performance for 2022 compared to previous years is "largely attributable to the increased volume of high bill inquiries." However, the June 2023 year-to-date performance is 78 percent which meets the benchmark.

Regarding the Telephone Service Factor (TSF) SQI, on pages 127 to 128 of the Application, FBC states:

> The 2022 result was 65 percent, which was lower than the threshold. The June 2023 year-to-date performance is 72 percent, which is better than the benchmark.
>
> […] In addition, it takes approximately 12 months for new employees to be proficient and fully trained to support all customer inquiries and calls, and as such, average call handle times remain higher than normal while a greater portion of employees gain this experience. […]
>
> High bill inquiries are expected in the first quarter of the year and planned for with staffing levels and schedules adjusted, new hire classes timed accordingly, and refresher training offered to those employees who may need it. However, the colder temperatures resulted in a volume of high bill inquiries that was greater than anticipated and lasted longer than typical. This particular call type is often longer in duration and may also result in follow-up work and investigation.

In footnote 55 on page 127 of the Application, FBC states:

> On average, FBC has approximately 20 customer service representatives, and 8 left the organization in 2022 and 4 in 2021. This compares to typical annual attrition in the range of 1-2 customer service representatives from the organization.

Regarding the Average Speed of Answer (ASA) SQI, on page 129 of the Application, FBC states:

> 2022 performance reflects the challenging circumstances described above for the Telephone Service Factor (Non-Emergency). Recovery of the ASA commenced in March 2023 with monthly ASA performance returning to typical levels of approximately 1 minute. This is expected to continue through the remainder of the year.

22.1 Given the increased number of bill related inquiries during colder temperatures, please explain whether FBC expects the performances of TSF and FCR SQIs to remain at or above their applicable benchmark or threshold levels through the remainder of 2023.

22.1.1 If no, please describe any actions FBC has taken or plans to take to mitigate the impact of high bill inquiries on the performances of the FCR and TSF SQIs.

Response:

Barring unforeseen circumstances, FBC expects to achieve and maintain the performance of the FCR and TSF SQIs at the benchmark through the remainder of 2023. FBC also expects the informational average speed of answer (ASA) SQI to be around the 1-minute level for the remainder of the year.

FBC has implemented measures to mitigate and manage the impacts of the increased number of bill inquiries during colder temperatures on FCR, TSF and ASA, which include adjustments to hiring, training, utilizing overtime, an increased focus on FCR, and a continued emphasis on ensuring that overall service quality to customers is maintained.

Additional measures that continue to be in place to mitigate impacts of high call volumes at any time in the year include the call-back option, self-serve options, website, social media communications and leveraging gas customer service representatives trained to support electric customers during peak volume periods.

22.2 Given the increased number of bill related inquiries during colder temperatures, please explain why FBC expects the recovery of the ASA performance to continue at approximately 1 minute through the remainder of the 2023 year.

Response:

Please refer to the response to BCUC IR1 22.1.

22.3 Please provide the total number of customer service representatives in FBC's contact centre and the year-to-date attrition level as of June, 2023.

22.3.1 As part of the response, please discuss whether FBC expects there to be higher number of experienced customer service representatives available to support call volumes through the remainder of 2023

22.3.2 Please discuss the impacts, if any, that the June, 2023 year-to-date attrition level will have on the expected performances of ASA, TSF and FCR SQIs for the remainder of 2023

Response:

FBC’s total number of customer service representatives can vary month over month. At the end of June 2023, there were 17 customer service representatives in FBC's contact centre. Total 2023 attrition at the end of June 2023 was 7 customer service representatives, which includes employees who have moved to other roles within FortisBC.

The level of experience of customer service representatives can vary throughout the year and from year-to-year as it depends on the tenure of current staff and the tenure of staff leaving FBC or moving into other roles within FBC; however, FBC continues to hire and train employees so that there are sufficient numbers of qualified customer service representatives available to support call volumes throughout the year.

To support call volumes, ASA, TSF, and FCR SQIs, FBC regularly reviews call volume forecasts throughout the year to determine the required number of new employees. Other measures to support call volumes include overtime, self-serve options, increasing timing and size of new hire classes, training, and leveraging gas customer service representatives trained to support electric customers during peak volume periods.

23.0 Reference: SERVICE QUALITY INDICATORS

Exhibit B-2, Section 13.2.1, p. 124

Safety SQI Results

On page 124 of the Application, FBC states:

> The 2022 annual AIFR [All Injury Frequency Rate] was 2.60 which reflected 4 Medical Treatments and 8 Lost Time Injuries. The increase in AIFR was particularly prevalent in Q4 2022, after a sudden change in winter conditions led to a notable spike in slips, trips, and falls resulting in more serious injuries. FBC responded to this by issuing an immediate safety alert (Safely Navigating Winter Conditions) to all field employees, which was also reviewed at all safety meetings, and providing access to traction aids throughout Operations.
>
> The June 2023 year-to-date performance (three-year rolling average) result is 1.76 which is better than the threshold. The June 2023 year-to-date performance (annual) is 2.54 and reflects 3 Medical Treatments and 3 Lost Time Injuries. Thus far in 2023, FBC continues to see an increase in total minor preventable injuries, predominately those sustained while performing activities involving repetitive work and/or awkward positioning. FBC has responded to this by engaging its Ergonomist and Injury Prevention Specialist to provide more education and treatment throughout the Company.

23.1 Please explain whether the "notable spike in slips, trips, and falls during 2022" was the result of severe winter conditions in 2022.

Response:

Yes, the notable increase in slips, trips, and falls during 2022 was directly related to the severe winter conditions that occurred in the fourth quarter.

During 2022 and year-to-date in 2023, FBC has seen a notable increase in recordable safety events. During the fourth quarter of 2022, FBC experienced a spike in slips, trips and falls due to severe winter conditions, resulting in a corresponding increase to the total annual 2022 AIFR results. This trend continued into the early part of the first quarter of 2023 and then stabilized. However, in the latter part of the second quarter of 2023, FBC experienced an unrelated increase in recordable safety events (predominately minor lacerations/cuts requiring medical attention) that resulted in another spike in the year-to-date AIFR.

FBC has dedicated internal resources to identifying the causes of these events, including any associated patterns/trends, and developed robust safety solutions and improvements to mitigate and/or minimize the risk of future recurrences. These include, but are not limited to, updates/changes to the safety management system, processes/procedures, customized education and (re)training, and targeted initiatives. FBC has also recently engaged skilled Injury Prevention and Management Specialists to work directly with employees, focusing on proactive hazard identification, ergonomics, and post-work recovery activities. Furthermore, FBC continues to engage WorkSafeBC in an effort to learn how FBC can enhance its existing programs to support safe Recover at Work plans where applicable.

FBC considers the events to be anomalies, not a lapse in critical processes.

23.2 Please describe any updates to FBC's safety management system as a result of the decrease in annual AIFR performance for 2022 and 2023 year-to-date as compared to previous years.

Response:

Please refer to the response to BCUC IR1 23.1.

24.0 Reference: SERVICE QUALITY INDICATORS

Exhibit B-2, Section 13.2.3, pp. 130–131; FBC 2023 Annual Review, Exhibit B-3, BCUC IR 28.3

Reliability SQI Results

On page 130 of the Application, regarding the System Average Interruption Duration Index (SAIDI), FBC states:

> The 2022 result was 2.42 which was better than the benchmark of 3.22. The June 2023 year-to-date performance is 3.21 which is better than the benchmark. The 2022 results improved compared to 2021 due to the absence of multiple external factors (i.e., fires, storms, collapse of crane incident in Kelowna in 2021) which negatively impacted the 2021 SAIDI results.

On page 131 of the Application, regarding the System Average Interruption Frequency Index (SAIFI), FBC states:

> The 2022 result was 1.52 which was better than the benchmark, and the June 2023 year-to-date performance is 1.48 which is also better than the benchmark [1.57]. The 2022 SAIFI results improved compared to 2021 due to the absence of the same multiple external factors (i.e., fires, storms and collapse of crane incident in Kelowna in 2021).

In response to BCUC IR 28.3 in the FBC 2023 Annual Review proceeding, FBC stated:

> FBC has established several programs to mitigate the impact of external factors on SAIDI performance. To minimize the impact of wildfires, FBC has acquired and deployed equipment and materials to allow for the proactive application of fire retardant to assets ahead of an approaching wildfire. In addition, FBC has a targeted program to increase right-of-way widths on three transmission lines that have a relative higher frequency of tree contacts. To reduce wildlife caused outages, FBC has a program to install animal cover-up protection for substation equipment.

24.1 Given the variance of 0.01 between the SAIDI benchmark and June 2023 year-to-date performance, please explain whether FBC expects the year-end SAIDI SQI to meet or exceed the benchmark level by the fourth quarter of 2023.

<u>Response:</u>

The updated 2023 SAIDI, which is based on the August 2023 year-end forecast, is 3.25. The year-end forecast is calculated by taking the actual values available in the applicable year (up to the end of June in the Application, and up to the end of August in this IR response) and applying a three-year average projection to the end of the year. Annualizing the year-to-date results is necessary to provide an appropriate comparison to the benchmark and threshold which are annualized numbers.

FBC is confident that actual SAIDI year-end performance will perform better than the threshold. However, FBC is unable to indicate whether the actual SAIDI year-end performance will meet, exceed or be slightly below the benchmark, as the results are impacted by various external factors, such as weather.

24.2 Please explain whether FBC expects the establishment of programs referenced in the response to BCUC IR 28.3 in the FBC 2023 Annual Review proceeding to mitigate the impact of external factors on 2023 SAIDI and SAIFI performance.

<u>Response:</u>

Yes, FBC expects the establishment of programs referenced in the response to BCUC IR1 28.3 in the Annual Review for 2023 Rates proceeding to mitigate the impact of external factors on the 2023 SAIDI and SAIFI performance. However, the number of external events vary in number and severity from year to year and will continue to impact SAIDI and SAIFI performance. The programs listed in BCUC IR1 28.3 are intended to mitigate known risks and do not mitigate the impact of all potential external factors that could impact reliability.