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October 6, 2022

Residential Consumer Intervener Association
c/o Midgard Consulting Inc.
Suite 828 – 1130 W Pender Street
Vancouver, B.C.
V6E 4A4

Attention: Mr. Peter Helland, Director

Dear Mr. Helland:

Re: FortisBC Inc. (FBC)

Annual Review for 2023 Rates (Application)

Response to the Residential Consumer Intervener Association (RCIA) Information Request (IR) No. 1

On August 5, 2022, FBC filed the Application referenced above. In accordance with regulatory timetable established in British Columbia Utilities Commission Order G-193-22 for the review of the Application, FBC respectfully submits the attached response to RCIA IR No. 1.

For convenience and efficiency, if FBC has provided an internet address for referenced reports instead of attaching the 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:

Diane Roy

Attachments

cc (email only): Commission Secretary
Registered Parties

CHAPTER 3: LOAD FORECAST AND REVENUE AT EXISTING RATES

1.0 Reference Exhibit B-1, Page 14

Section 3.2 – Overview of Forecast Methods

FBC states:

"The load forecast for residential customers is based on forecasts for the number of customers and UPC rates. Specifically, the UPC forecast is multiplied by the corresponding forecast of the number of annual average customers to derive the residential load forecast. The commercial load forecast is based on a regression against the Conference Board of Canada (CBOC) Gross Domestic Product (GDP) forecast, the lighting forecast uses the prior year's actual load, and the irrigation forecast uses a five-year historical average. Wholesale and industrial forecasts are primarily based on customer-specific survey results."

1.1. How has FBC considered the disruptions in normal activities between 2020 and 2022 that were caused by the pandemic in its application of forecast trends? Please discuss.

1.1.1. How has the 2020 increase in UPC (speculated to have been caused by a switch of commercial load to home load as workers who were able to work remotely did so) been integrated into FBC's UPC forecast as working arrangements revert to normal?

Response:

FBC includes historical normalized actual demand and use rates (UPC) in the residential and commercial forecast calculations, thereby implicitly including any impacts resulting from the ongoing COIVD-19 pandemic. FBC cannot objectively isolate or quantify impacts due to the COVID-19 pandemic and therefore does not attempt to make specific subjective adjustments for such factors in any of its regressions. Many other factors also influence the load forecast, including building standards, electric vehicles, and improved technologies. These other factors are also intrinsically included in the data used to develop the forecast.

1.2. How has the regression of the commercial load forecast against the CBOC GDP evolved during the COVID-19 Pandemic?

1.2.1. Does this impact FBC's commercial load forecast as the Province reverts to more normal circumstances? Please discuss.

Response:

There has been no change to the regression method used for the commercial load forecast against the CBOC GDP projections. FBC uses the latest projections from the CBOC available at the time that the forecast is completed, normally in May. As the CBOC GDP projections are updated quarterly, any impact on GDP due to the COVID-19 pandemic should be included in the CBOC's GDP projections.

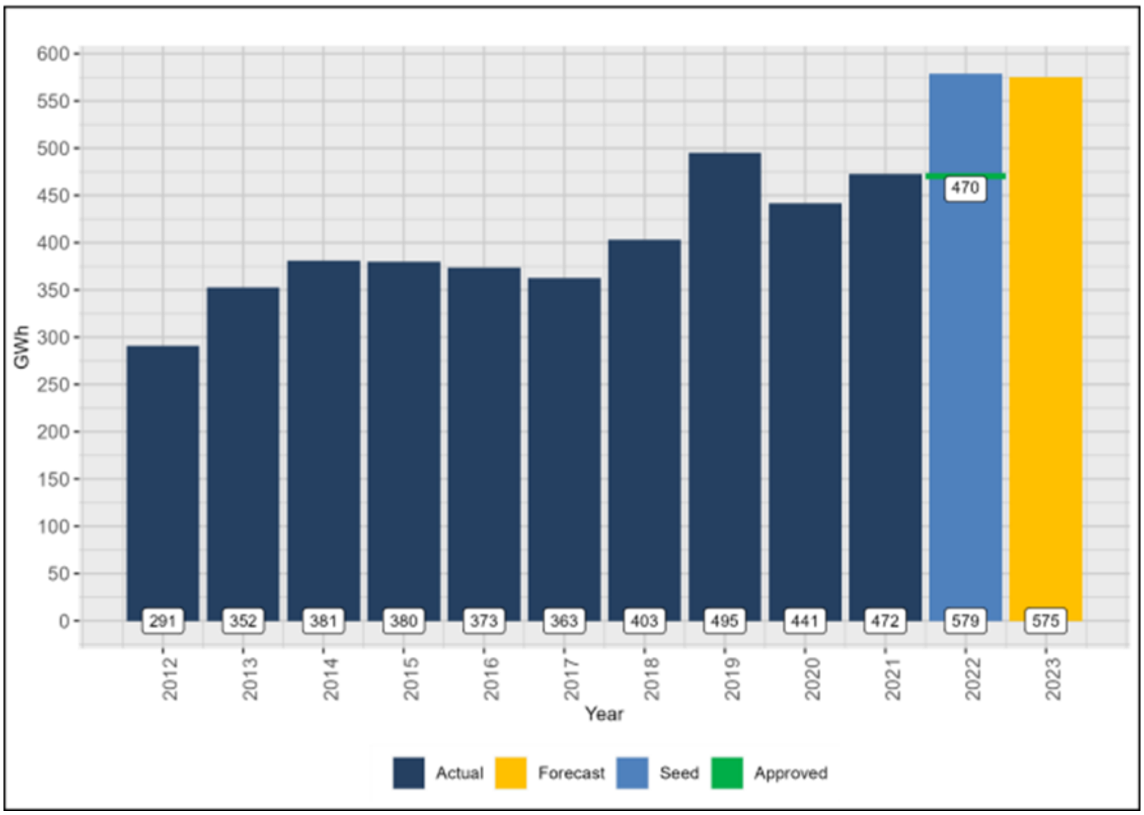
2.0 Reference Exhibit B-1, Page 23

Section 3.4.4 – Industrial

FBC states:

"As shown in Figure 3-7 below, after-savings industrial load is forecast to decrease by 4 GWh in 2023F when compared to 2022S and increase by 105 GWh in 2023F compared to 2022 Approved. The increased forecast in 2022S and 2023F compared to 2022 Approved is primarily due to projected increases in data centre loads."

Figure 3-7: After-Savings Industrial Load (GWh)



2.1. Please characterize the new data centres that are responsible for the discontinuous incremental load growth in 2022 and forecast 2023.

<u>Response:</u>

Please refer to the response to BCUC IR1 7.2 which explains that the increase in the expected load for 2022 is mainly attributable to the new data centres, and FBC expects this level of load will continue into 2023. The 4 GWh decrease from the expected level of 2022 to 2023 Forecast is due to DSM savings, not due to a reduction in customers.

2.2. Please indicate the effective energy rate paid by the new industrial load for the incremental energy.

2.2.1. What is the marginal cost of acquiring energy to service this load?

Response:

FBC does not allocate specific energy purchases to any individual customer or customer class whether at marginal cost or as part of lower cost power purchases. The incremental load attributable to the data centres is simply part of FBC's overall load that FBC resources with a mix of supply to which all customers are entitled without distinction. The current allocation of FBC's costs, including the cost of energy, was reviewed by the BCUC as part of a rate design proceeding and approved by Order G-40-19.[1]

However, to be responsive, the effective rate for industrial customers is $86.55 per MWh[2] while FBC's marginal cost of acquiring energy would be equivalent to FBC's access to BC Hydro's embedded cost of energy under the PPA, which is $50.94 per MWh as of April 1, 2021, up to a maximum limit of 1,041 GWh (Tranche 1 Energy). Above 1,041 GWh and up to the maximum of 1,752 GWh, the energy cost increases to $109.35 per MWh (Tranche 2 Energy), which is tied to BC Hydro's proxy for long run marginal cost for firm energy and is equal to BC Hydro's RS 1823 Tier 2 rate.

2.3. If the effective rate is lower than the cost of acquiring the incremental energy, then is it fair to say that other customer classes are effectively subsidizing the required incremental energy required to service the step change increase in industrial load? Please discuss.

Response:

Please refer to the response to RCIA IR1 2.2.

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1 FBC's cost of service analysis (COSA) was updated and filed with the BCUC on December 17, 2020 as a Compliance Filing to Order G-40-19.

2 Based on the 2023 Forecast industrial revenue and load included in the Application, assuming the requested 3.99 percent rate increase.

3.0 Reference Exhibit B-1, Page 26-28

Section 3.4.8 – Peak Demand

FBC states:

"The peak demand forecast is produced using the 10-year average of historical peaks, including peaks from the June 2021 "heat dome" event. 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."

FBC also presents the following figures:

Figure 3-11: After-Savings Winter Peaks (MW)

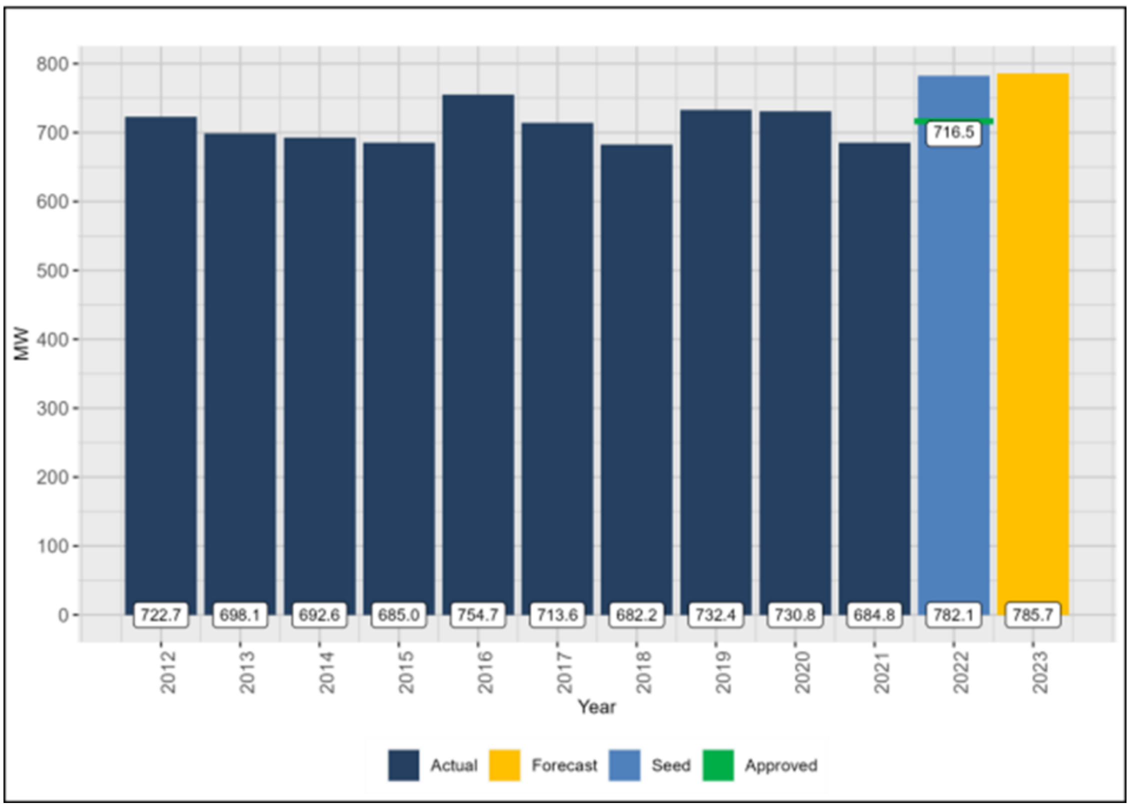
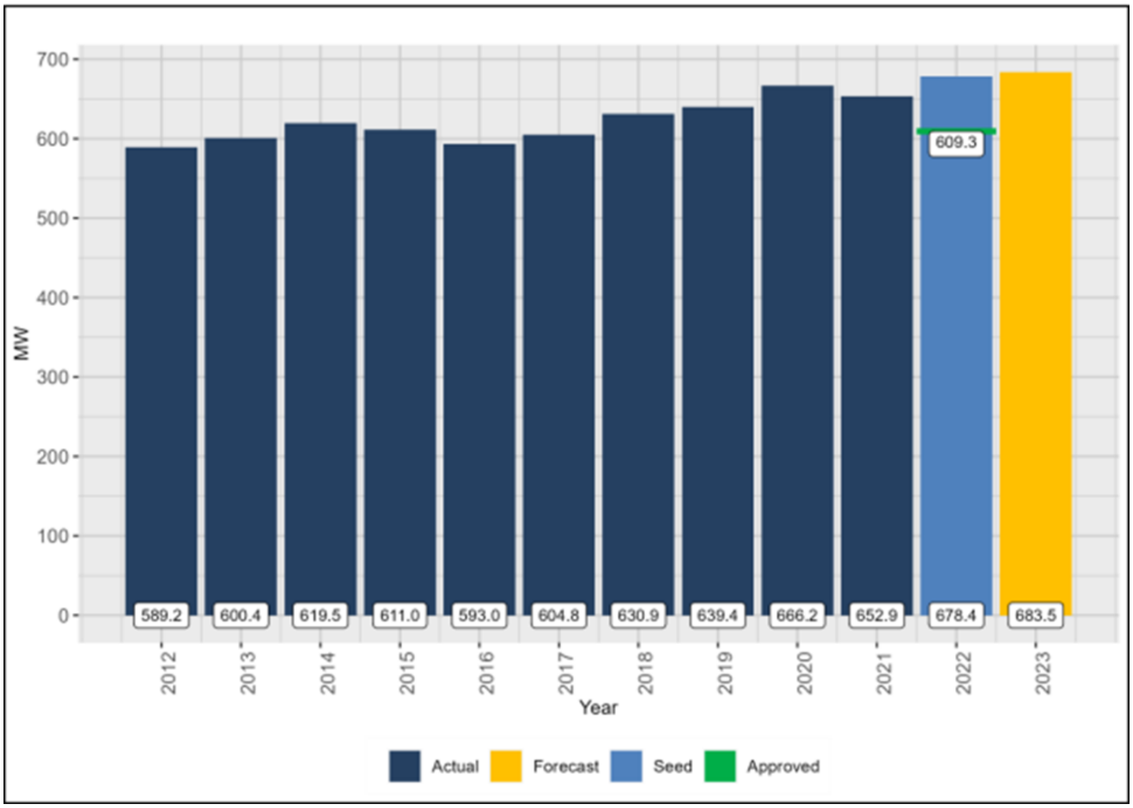


Figure 3-12: After-Savings Summer Peaks (MW)



3.1. Please restate Figure 3-11 and Figure 3-12 in a manner that shows the peak demand attributable to the different rate classes in each season.

3.1.1. If this cannot be done, please explain why not.

Response:

Please refer to the response to ICG IR1 8.1.

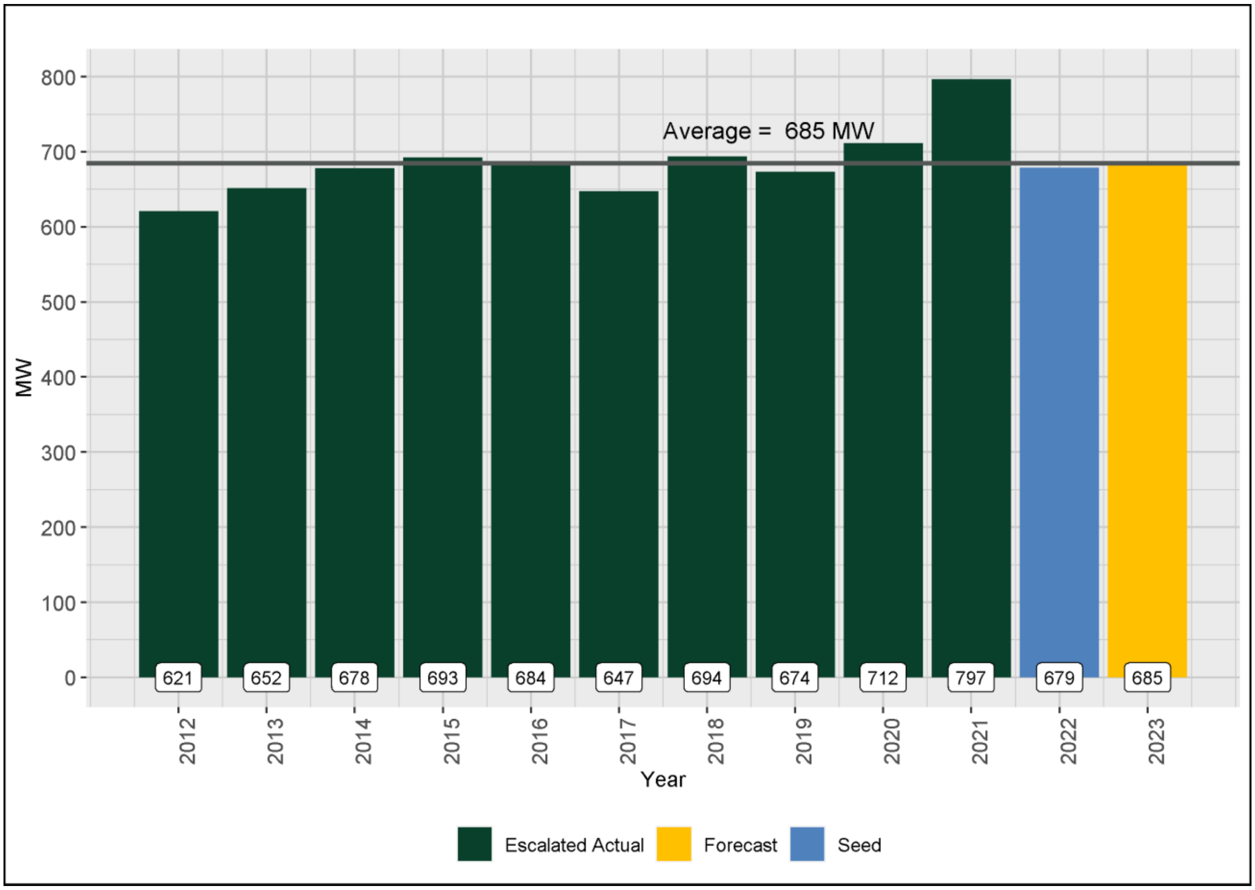
3.2. Please explain why the 2021 After Savings Summer Peak is lower than the 2020 peak, despite the claimed impact of the 2021 Heat Dome event.

Response:

The historical summer peaks (dark blue bars) shown in Figure 3-12 are weather normalized so that non-weather-related peak load growth would be more apparent. As a result of the normalization process the weather normalized 2021 summer peak is slightly lower than the weather normalized 2020 summer peak.

FBC clarifies that the peak forecasts for 2022S and 2023F were based on actual peak data (i.e., not weather normalized) which includes the 2021 Heat Dome event, as well as impacts from increased industrial loads in recent years. Please refer to the figure below which shows 10 years of actual summer peaks (i.e., not weather normalized) from 2012 to 2021, escalated by annual energy load growth rates (i.e., green bars). The average of the 10 years escalated actual summer peaks was then used to forecast the 2023 summer peak. FBC notes the summer peak is the maximum forecast between the months of June and August and is usually on one of the hottest days of the year.

As the figure below shows, the 2021 peak resulting from the heat dome weather event is clearly visible and it factors into the forecast for 2022 and 2023 through the calculation of the average.



CHAPTER 4: Power Supply

4.0 Reference Exhibit B-1, Page 31

Section 4.3 – Portfolio Optimization

FBC states:

"However, in contrast to recent years, the regional electricity market has experienced a step change over the past year 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 PPA purchases on a forward basis."

4.1. Does FortisBC anticipate that the market factors that reduced the opportunity to displace PPA purchases in 2022 will continue, improve, or worsen in 2023 and beyond? Please discuss.

<u>Response:</u>

FBC anticipates that the market factors that reduced FBC's opportunity to displace PPA purchases in 2022 will likely continue or worsen throughout the next several years. Please refer to the response to CEC IR1 11.3 for further explanation.

4.2. If FortisBC expects the market situation to worsen, what steps is FortisBC taking to mitigate its PPE in consideration of its growing industrial loads with low energy rates?

<u>Response:</u>

In response to current and anticipated market conditions in the near term, FBC plans to maximize its PPA nomination to the full extent possible to mitigate expense. One of the main benefits of the PPA resource is that it acts as a price cap on energy if market prices rise, which FBC has benefited from with recent changes in the wholesale market. In addition, FBC will watch for opportunities to economically displace PPA through forward market contracts as well as on a day ahead basis throughout the year. FBC will continue to develop strategies for mitigating power purchase expense in a high price, high load environment and will provide an update on these efforts in its Annual Electric Contracting Plan (AECP) for 2023/24.

5.0 Reference Exhibit B-1, Page 34 & 39
Section 4.6.1 – Brilliant
Section 5.3 – Contract Revenue

FBC states:

"Brilliant expense is forecast to increase in 2023 by $1.683 million compared to 2022 Projected due to increased rates, which are based on a forecast of the operating and maintenance cost of the plant, as well as a true-up to the prior year's actual costs compared to forecast."

FBC states on page 39:

"FBC performs work under contract to third parties at the Waneta and Brilliant hydroelectric generating facilities. This third-party work, and the associated management fees earned, fluctuates from year to year based on customer requirements, which include routine and non- routine work planned at the start of the customer's fiscal year."

5.1. Given that FortisBC provides O&M services to Brilliant, are the Brilliant O&M costs subject to oversight by an independent third party? Please provide any available documentation and discuss.

<u>Response:</u>

There is a Brilliant Management Committee, comprised of two appointees from FBC and two appointees from either Columbia Power Corp (CPC) or Columbia Basin Trust (CBT), the independent joint owners of the Brilliant dam. Part of the responsibilities of the committee include approving an operating plan and budget for the upcoming year. While the committee is not completely independent, since two appointees are from FBC, it does comprise two members who are independent from FBC and serves a governance function that is necessary for approval of annual scopes of work and O&M costs through joint decision-making. Considerations involved in the annual plan include FBC's recommendations for work to be performed, and budgeting priorities of CPC and CBT.

6.0 Reference Exhibit B-1, Page 34

Section 4.6.2 – BC Hydro PPA

FBC states:

"BC Hydro PPA expense is forecast to increase in 2023 by $21.763 million compared to the 2022 Projected expense. The drivers of the increase are a higher purchased volume (371 GWh), which increases the expense by $21.775 million, and an increase in BC Hydro rates, which accounts for an increase of $3.987 million, for a total of $25.763 million."

6.1. Please provide details of the PPA rate increase.

Response:

As per BC Hydro's Fiscal 2023 to Fiscal 2025 Revenue Requirements Application[3] dated August 31, 2021, the BC Hydro PPA Energy Rate will decrease by 1.4 percent on April 1, 2022, followed by an increase of 2.0 percent on April 1, 2023.

6.2. Please explain how the volumes taken under the PPA are dispatched and measured.

Response:

Prior to each operating day, FBC's system schedulers nominate the required amount of PPA energy for each hour of the day via Powerex, based on FBC's forecast load requirements. This pre-scheduled PPA volume can then be adjusted by system operators on a real-time basis, up to 25 MW per hour, depending on daily system requirements. For each hour of each day, the amount of PPA used, along with the point of delivery, are tracked by FBC and confirmed with BC Hydro. At the end of the month FBC is billed for both capacity and energy by BC Hydro once volumes are settled.

6.3. Please explain how the PPA payments are calculated.

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[3] Page 1-50, Exhibit B-2, BC Hydro F2023-F2025 Revenue Requirements, DOC_64005_B-2-BCH-F23-F25-RRA-public.pdf (bcuc.com)

Response:

PPA payments are the total cost of both the capacity and energy used in each month. PPA capacity payments are calculated by taking FBC's monthly billing demand multiplied by the current demand charge outlined in BC Hydro's Electric Tariff[4] under Rate Schedule 3808. The billing demand is the greater of:

a) The maximum amount of Electricity (in kW) scheduled under the Power Purchase Agreement, for any hour of the Billing Month;

b) 75 percent of the maximum amount of Electricity (in kW) scheduled under the Power Purchase Agreement in any hour in the 11 months of the Term immediately prior to the Billing Month; and

c) 50 percent of the Contract Demand (in kW) for the Billing Month.

PPA energy payments are calculated by taking FBC's total scheduled PPA energy in each month multiplied by the appropriate energy charge outlined in BC Hydro's Electric Tariff.

[4] https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/tariff-filings/electric-tariff/bchydro-electric-tariff.pdf.

CHAPTER 8: FINANCING AND RETURN OF EQUITY

7.0 Reference Exhibit B-1, Page 77

Section 8.1 – Introduction and Overview

FBC states:

"FBC's ROE is set at a premium of 40 basis points over the benchmark ROE, which is the ROE approved for FEI."

7.1. Does FBC consider that approval of a new FEI ROE is equivalent to automatic approval of a new FBC ROE set 40 basis points above FEI's new ROE?

Response:

Currently, FBC's ROE is set at a premium of 40 basis points (bps) over the Benchmark ROE (FEI has historically been the Benchmark Utility for all investor-owned utilities in the Province).

As explained in Section 8.1 of the Application, FBC is currently participating in the BCUC-initiated Generic Cost of Capital (GCOC) proceeding and has filed evidence on its recommended capital structure and ROE as part of Stage 1 of the proceeding. In Order G-156-21 and accompanying Reasons for Decision, the BCUC found that the effective date to implement a new cost of capital will depend on the timing and progress of the GCOC proceeding. Further, Order G-281-21 dated September 24, 2021, directed that a review of FEI's and FBC's cost of capital evidence is necessary before determining whether FEI or FBC, or both, shall serve as a Benchmark Utility.

Considering the BCUC's direction for each of FEI and FBC to file separate evidence, the BCUC can individually determine each of FEI's and FBC's appropriate allowed ROE and capital structure without reference to a Benchmark Utility. As such, FBC expects that the GCOC decision will include a determination on FBC's capital structure and ROE.

8.0 Reference Exhibit B-1, Page 77

Section 8.1 – Introduction and Overview

FBC states:

"FBC is currently participating in the BCUC-initiated Generic Cost of Capital (GCOC) proceeding and has filed evidence on its recommended capital structure and ROE as part of Stage 1 of the proceeding. In Order G-156-21 and accompanying Reasons for Decision, the BCUC found that the effective date to implement a new cost of capital will depend on the timing and progress of the GCOC proceeding. As explained in Section 1.2, FBC is seeking approval of interim 2023 rates pending the outcome of Stage 1 of the GCOC proceeding as well as a decision on FBC's 2023-2027 DSM Expenditure Plan. When a decision is reached on these proceedings, FBC will update its rate calculations and apply for permanent 2023 rates."

8.1. If the BCUC-initiated Generic Cost of Capital ("GCOC") Proceeding is delayed, does FBC expect to implement retroactive treatment for updating rate calculations or is FBC proceeding on a "go-forward" basis? Please discuss.

Response:

FBC is requesting that 2023 rates be set on an interim and refundable basis effective January 1, 2023; therefore, if the BCUC determines in its decision on the GCOC Stage 1 proceeding that the effective date to implement a new cost of capital (should a new cost of capital be approved) is January 1, 2023, FBC would be able to implement the changes to its cost of capital and reflect these changes in permanent 2023 rates effective January 1, 2023. This would not be retroactive ratemaking given that FBC's rates would have been set on an interim basis as of January 1, 2023.

9.0 Reference Exhibit B-1, Page 78

Section 8.3.3 – Forecast of Interest Rates

FBC states:

"FBC's short-term borrowing rate is based on the rate at which it issues commercial paper. Since commercial paper issuance rates are not forecast by economists, a forecast needs to be derived by FBC. The forecast is based on the historical differential between the Canadian Deposit Overnight Rate (CDOR) and the rate obtained by FBC under its commercial paper program. CDOR is used because FBC's short-term borrowings under its credit facility are priced based on CDOR and therefore CDOR is tracked relative to FBC's commercial paper borrowings. As CDOR is not forecast by economists, FBC must first obtain the 3-Month T-Bill rate forecast and then convert it to a CDOR forecast. FBC does this by taking the 3-year historical spread between CDOR and the 3-month T-Bill rate."

FBC also states:

"The 3-Month T-Bill forecast for 2023 is 3.14 percent, which is a significant increase from the 0.47 percent approved in 2022."

9.1. Please provide a comparison spread between CDOR and a 3-Month T-Bill rate for other time frames:

a) Last three-year average;

b) Pre-pandemic 3-year average; and

c) Late 1990s three-year average.

Response:

Please see the table below for the requested comparison.

	Historical 1997-1999[1]	Historical 2017-2019[1]	Historical 2020-2022[2]
3 Month T-Bill Rate	4.25%	1.26%	0.68%
Spread to CDOR	0.30%	0.42%	0.38%
CDOR/Banker's Acceptance Rate	4.55%	1.67%	1.06%

Notes:

1. January 1 to December 31 of each year, based on monthly CDOR and 3-Month T-Bill data from Bloomberg.
2. January 1 to August 31 2022, based on monthly CDOR and 3-Month T-Bill data from Bloomberg.

9.2. Is it reasonable to expect the last three (3) year average spread between CDOR and a 3-Month T-Bill is representative of the forecast period spread, considering the recent transition to a rising interest rate environment? Please discuss.

<u>Response:</u>

Canadian Chartered Banks do not forecast credit spreads for issuer commercial paper programs like they do for benchmark interest rates for short-term and long-term treasury bonds. Therefore, relying on historical spreads is FBC's best estimate of the corporate credit spread going forward. The 2023 forecast spread provided by FBC is based on the last three years, July 2019 to July 2022, which means that the higher interest rates that FBC experienced in 2022 were partially captured in the spread calculation. FBC notes that the interest rates are forecast at a point in time, and any variances between forecast and actual interest rates will be captured in the Flow-through deferral account and will be recovered from/returned to customers in subsequent years.