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February 14, 2023

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
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Attention: Sara Hardgrave, Acting Commission Secretary

Dear Sara Hardgrave:

Re: FortisBC Inc. (FBC)

Application for Approval of a Large Commercial Interruptible Rate (Application)

FBC Final Submissions

On July 6, 2022, FBC filed the Application referenced above. In accordance with the further regulatory timetable established in BCUC Order G-22-23 for the review of the Application, please find attached FBC's Final Submissions.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Sarah Walsh

Attachment

cc (email only): Registered Interveners

BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF the *Utilities Commission Act,*
R.S.B.C. 1996, Chapter 473 (the "*Act*")

and

An Application by FortisBC Inc.

for Approval of a Large Commercial Interruptible Rate

FINAL SUBMISSIONS OF

FORTISBC INC.

February 14, 2023

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PART ONE: INTRODUCTION

1. On July 6, 2022, FortisBC Inc. (FortisBC, FBC, or the Company) filed with the British Columbia Utilities Commission (BCUC) an application to implement a Large Commercial Industrial Rate (LCIR or Program). As proposed, eligible new or existing Large Commercial Customers could choose to take service using this optional interruptible rate which would provide non-firm, interruptible service under a set of certain defined circumstances, and be priced in relation to the hourly level of the Intercontinental Exchange (ICE) Day Ahead Mid-Columbia (Mid-C) Index. Once approved, the LCIR would be referred to as RS 38 - Large Commercial Interruptible Service.

2. Under the Program, monthly billing for an Interruptible Customer will include a Customer Charge and an Energy Charge. Since the energy delivered is non-firm and will not contribute to the need for infrastructure investments that are not fully funded by the Interruptible Customer, there is no Demand Charge associated with the rate. As described in Section 3.2.1.2 of the Application, the LCIR Energy Charge is based on the ICE Day Ahead Mid-C Index for the applicable day of energy flow and includes a factor for System Losses as well as an Hourly Service Adder, discussed in Section D below. In the Application, FBC also proposed the inclusion of a Clean Market Adder (CMA) in the energy charge. FBC is no longer proposing a CMA, for the reasons discussed in Section C below.

3. Prior to submitting the Application, FBC engaged with potential rate participants (those currently served under RS 30 and RS 31, as well as potential customers as identified by FBC's Key Account Managers), and representatives of groups who often intervene in FBC proceedings. The version of RS 38 included with the Application reflected input received to that point in time from these participants.

4. The regulatory process to date has included active participation by the Industrial Customer Group (ICG), BC Sustainable Energy Association (BCSEA), Commercial Energy Consumers Association of BC (CEC), and the BC Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, and Tenant Resource and Advisory Centre (BCOAPO). DMG Blockchain Solutions Inc. (DMG), an industrial customer in the blockchain and cryptocurrency business,1 also registered as an intervener, but did not file information requests (IRs). FBC has responded to approximately 500 IRs over two rounds. The IR process has resulted in revisions

[1] Exhibit C3-1.

to elements of the LCIR as originally designed, as has the recently issued BCUC Decision on FBC's Long Term Electric Resource Plan (LTERP).[2]

5. An updated version of RS 38 reflecting revisions resulting from the IR process was attached to FBC's IR responses of October 26, 2022, and in particular as Attachment 25.1 to FBC's response to BCUC IR1 25.1 (Exhibit B-3).

6. The remainder of these submissions addresses these revisions, as well as topics that emerged as areas of particular BCUC or intervener interest or where clarification was sought. Part Two discusses the need for interruptible service, Part 3 of contains a discussion of key LCIR components, and Part 4 of discusses potential ratepayer impact. Finally, Part 5 addresses regulatory efficiency and other regulatory considerations.

7. FBC submits that the LCIR should be approved because the LCIR provides for enhanced service and choice to Large Commercial Customers, results in increased load and more efficient use of the transmission and distribution systems, and provides for increased economic activity, while presenting very little risk to ratepayers generally. Such risk would be related only to a potential mismatch between the price paid by FBC for power and the RS 38 revenue, a situation FBC foresees to be "very rare".[3] And, even if there were occasions where such a mismatch did occur, it is almost certain that over time, the Program would yield a positive margin.

PART TWO: THE NEED FOR AN INTERRUPTIBLE RATE

8. Section 2 of the Application discussed FBC's view of the four primary drivers for interruptible service. These are to: 1) Allow eligible customers to connect where system capacity would otherwise not be available under existing system planning criteria; 2) Increase the overall system load factor (which provides general rate mitigation through increased revenue); 3) Provide eligible customers the opportunity to realize cost savings and/or bridge to non-interruptible rates over time; and 4) Provide a practical alternative to previously-approved transmission services (Retail Access) which, on a practical basis, cannot be utilized by customers due to external circumstances.

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[2] See Decision and Order G-380-22.

[3] See FBC responses to BCUC IR1 2.2 (Exhibit B-3) and BCOAPO IR1 22.1 (Exhibit B-4).

9. Notwithstanding the potential to realize cost savings as compared to firm rates, the most likely and valuable driver for the LCIR is in relation to driver 1) above - that it could allow for the connection of additional load to the system when it may otherwise not be possible. As noted in the response to BCUC IR1 10.4.1, a key driver for RS 38 is the ability of a Customer to take service where capacity may not be available for firm service under RS 30/31. While a number of questions posed to FBC during the IR process sought comparisons in revenue and margin for Customers taking service on a firm rate versus the LCIR, the most likely and relevant choice facing the Customer may be to take service under RS 38 or not to take service from FBC at all.

10. For existing Large Commercial Customers, the LCIR may allow for an increase in load at existing operations on either an ongoing interruptible basis or until such a time as the FBC system could accommodate an increase in the level of firm service.

11. For an entirely new (to FBC) Large Commercial Customer, the LCIR may make interconnection possible where FBC may have otherwise had to turn the Customer away or delay interconnection until customer-funded system upgrades required for firm service could be completed.

12. For all customers, having Large Commercial Customers taking service pursuant to the LCIR can provide additional margin that helps to mitigate against upward rate pressure within a design that offers substantial protection against negative rate impacts, as returned to in Part 4 below.

13. With respect to driver 4 above, it may be the case that a Large Commercial Customer that is entirely new to FBC, or one that is currently served on a Large Commercial rate, would choose the LCIR with the objective of reducing its overall energy costs as compared to taking service on a firm rate. Were such a customer able to access the Mid-C market through Retail Access, and the Mid-C market was favourable, FBC anticipates that Customers would avail themselves of this service. In the absence of Retail Access, the LCIR will accommodate these types of requests.

14. The need for the LCIR is further demonstrated by the high level of interest in interconnecting to the FBC system as shown in the response to BCUC IR1 1.1.

PART THREE: DISCUSSION OF KEY LCIR COMPONENTS

15. While calculation of charges under the LCIR is not complicated and occurs according to the rate elements as contained in the RS 38 tariff schedule, as amended, there are a number of considerations

contained in the Special Conditions of the tariff schedule and accompanying Electricity Service Contract for Interruptible Service that received appreciable attention during the IR process. FBC addresses these considerations in the following sections.

A. SETTING THE MID-C PRICE CAP

16. In the Application, FBC proposed a Mid-C Price Cap that set an upper limit for the applicable Mid-C Price that is used in the Energy Charge calculation in the LCIR. The Mid-C Price Cap serves to mitigate the risk to other FBC customers that arises from the spread between the market price and price of energy charged to LCIR customers. The Mid-C Price Cap sets the point for the Mid-C price above which FBC is not obligated to serve customer load. FBC may continue to serve Customers when the Mid-C Price exceeds the Mid-C Price Cap if there are economic alternate sources of power such as the BC Hydro Power Purchase Agreement, FBC resources or long-term commitments, or FBC surplus capacity resources combined with surplus energy in storage.[4]

17. The Mid-C Price Cap is an important feature of the LCIR that offers protection to both the LCIR Customer and all other customers alike. The ability for FBC to interrupt or curtail LCIR Customers when the Mid-C price exceeds the Mid-C Price Cap is clearly contained in the RS 38 tariff pages through the combination of part (i) of the Energy Charge calculation and Reason for Interruption e:

> (i) …. In Hours in which the applicable Mid-C Price exceeds the cap, if any, nominated by the Interruptible Customer pursuant to the applicable Service Agreement, expressed in $/MWh (the "Mid-C Price Cap") for the month in which such Hour occurs, a value equal to the Mid-C Price Cap will be used.
>
> e: For Hours where FortisBC reasonably expects that the Energy Charge will be based on the Mid-C Price Cap as described in part i) of the Energy Charge portion of this rate schedule, FortisBC may interrupt the Customer.

18. The net effect of this aspect of the LCIR is as stated by FBC in response to CEC IR1 5.1 (Exhibit B-6): "The ability of FBC to interrupt a Customer if it cannot procure power at a cost lower than the Mid-C Price Cap virtually eliminates the risk that power will be sold on an uneconomic basis."

19. The Mid-C Price Cap should be set as proposed in the Application, as laid out in Clause 6 of the Electricity Service Contract for Interruptible Service and as clarified in FBC's responses to BCUC IR1 9.1

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4 FBC response to BCUC IR1 13.1.2 (Exhibit B-3).

and 22.1 (Exhibit B-3), which respectively describe the process of arriving at a Mid-C Price Cap and the Customer nominating requirements.

20. In its response to BCUC IR2 1.1 (Exhibit B-8), FBC discusses the potential involvement of the BCUC in setting the Mid-C Price Cap where FBC and a Customer cannot come to agreement. In that response, FBC notes:

a. FBC considers it highly unlikely for FBC and the Customer not to be able to reach agreement on the Mid-C Price Cap at any stage;

b. If the BCUC were involved in setting that initial Mid-C Price Cap, it is a reasonable assumption that neither party would be likely to initiate a return to the BCUC;

c. Whether or not BCUC involvement is expressly acknowledged in the RS 38 documentation, the BCUC remains the final arbiter in disagreements that may arise.

21. Therefore, given the small number of likely potential LCIR Customers, and the amount of communication and pre-interconnection work involved, FBC does not view involvement of the BCUC in setting the Mid-C Price Cap as likely, though as always in rate matters, the BCUC could potentially be called upon. While FBC has acknowledged that the potential exists for BCUC involvement in setting the Mid-C Price Cap, it does not believe that this unlikely occurrence is sufficient to warrant any departure from the means of setting the Mid-C Price Cap as proposed.

22. Similarly, FBC has explained how the unlikely scenario (unlikely particularly with a 50 MVA Program limit) involving multiple LCIR Customers with divergent Mid-C Price Cap nominations would be managed. The full discussion of this scenario is found in the responses to BCUC IR2 1.7 and 1.8 (Exhibit B-8). Up to four different Mid-C Price Caps are manageable without issue, and where there is a potential for a greater number, these requests will be consolidated into a maximum of 3 or 4 values by grouping the individual requests into clusters and then taking an average of each cluster, rounded to the nearest whole number. FBC does not believe that anything further is required on this point and believes that this represents a workable approach to setting a manageable number of multiple Mid-C Price Caps if needed.

B. THE NEED FOR A 50 MVA PROGRAM CAP

23. Special Provision 11 in RS 38 provides that “FortisBC maintains the right to place a cap on the aggregate MW accepted on the Interruptible Rate. The cap may be reviewed and revised from time to time. The current cap will be published on the FortisBC website”. (FBC addressed its usage of “MW” and “MVA” in its response to BCUC IR1 20.1, which is part of Exhibit B-3, and the final version of RS 38 will reflect the “MVA” wording accordingly.)

24. FBC has proposed a 50 MVA Program cap, the justification for which was expanded upon as part of the Supplemental Information filing, part 8 as reproduced below.

> The initial uptake limit is required for the reasons set out below, and a cap of 50 MW is a reasonable level for this new service. FBC must balance the access to the rate with the need to manage it successfully, given that Customers may be making long-term investment decisions that favour not introducing the rate as a pilot program. FBC expects that there will be operational learnings (see the response to [Supplemental Information] question 7, for example) that will need to be incorporated into the program before it can be expanded to a larger volume. In addition, there remains uncertainty in FBC’s energy and capacity needs for its existing Customers and therefore, what room may be available on FBC’s market import capabilities. There is a limit of how much cost-effective market power can be imported on any given hour and FBC’s existing needs currently take full advantage of the available import capability from time to time.

25. Further information on the 50 MVA Program cap has been provided since the filing of the Supplemental Information, including:

a. The 50 MVA level was chosen based on the operational experience and judgement of the FBC Power Supply group as a number that both provides for a reasonable load addition and will provide useful experience with the Program.[5]

b. FBC has indicated that it will be required, after some experience with RS 38, to make a determination on whether or not the initial program offering of 50 MVA should be expanded. However, this will be done after experience with the rate has revealed any issues that may exist with this form of interruptible service and not in comparison to a predetermined set of criteria.[6]

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[5] FBC response to BCUC IR1 20.2 (Exhibit B-3).

[6] FBC response to BCUC IR1 26.1 (Exhibit B-3).

c. A program that exceeds 50 MVA in load poses the risk that the very large amounts of energy required will be beyond the ability of FBC to supply on a regular basis while still leaving sufficient system flexibility to purchase low-cost power for the benefit of existing customers when it is available. The initial 50 MVA cap on participation will provide FBC with the experience necessary to subsequently set the program limit at a level where FBC is confident that additional load can be interconnected.[7]

d. FBC believes that the 50 MVA Program cap should be part of the LCIR when initially approved and has indicated that as part of the LCIR Report, it will keep the BCUC apprised of any internal decision with regard to the level of the program cap and communicate its intention regarding the options to expand or maintain interruptible service beyond the initial 50 MVA offering.

C. THE CLEAN MARKET ADDER

26. In the Application, FBC proposed the inclusion of a Clean Market Adder (as defined earlier, CMA) as part of the calculation of the Energy Charge portion of the LCIR. The CMA was proposed, consistent with the concept as included in FBC's 2021 LTERP, as a proxy for purchasing clean energy that is added to the electricity market price forecast included in the LTERP, based on a forecast from IHS.

27. Also in the Application, FBC stated, "Once a BCUC decision has been received, the LCIR will be updated to either remove the CMA or update the amount of the CMA in accordance with BCUC direction."[8]

28. Further, in response to BCUC IR1 11.4, FBC stated, "If the LTERP Decision is issued first and does not include acceptance of the CMA, the RS 38 tariff page finalized in this process would not include the CMA" (Exhibit B-3).

29. Accordingly, since the BCUC issued Order G-380-22 and the accompanying Decision in the LTERP process on December 21, 2022, and the CMA was not approved, the revised RS 38 tariff pages would no longer include the CMA.

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7 FBC response to BCOAPO IR2 51.1 (Exhibit B-10).

8 Application, page 11, lines 3-5 (Exhibit B-1).

30. The BCUC should approve the LCIR as revised, without the CMA. However, should a mechanism similar to the CMA feature in FBC's power purchase activities in the future, FBC may apply to the BCUC for a revision to the LCIR.

D. HOURLY SERVICE ADDER

31. The LCIR Energy Charge includes an Hourly Service Adder of $0.010 applied to every kWh of energy sold to Customers under the Program.

32. The Hourly Service Adder is set at a level that will not be likely to discourage participation in the LCIR while providing a broader customer benefit and is intended to recover costs associated with transmission charges that may occur when power used to supply LCIR Customers is sourced from the market as well as additional administration.

33. The $0.010 per kWh figure was put forward as a reasonable number in consideration of these factors and was set using FBC's experience and judgement. As part of the Supplemental Information filing, FBC provided its opinion that at a minimum, the charge should be no less than the charges that would occur under FBC's wholesale wheeling tariff if Retail Access service was available and being taken.

34. In practice, there will be times when power supplied to LCIR Customers comes from resources that do not require transmission services, and there may be variations in the actual transmission costs incurred based on time of day or location. However, FBC believes that the current level of the Hourly Service Adder of $0.010 per kWh is sufficient to meet the objectives of the charge, even when actual transmission charges include the additional amounts, and that a variable charge is not necessary.[9]

35. Further, FBC believes that the Hourly Service Adder should be set to reflect the revenue that it would receive from providing transmission service, not the total charges faced by the customer, much of which would be payable to other parties.[10] In this regard, FBC has confirmed that it intends to monitor the Hourly Service Adder periodically to assess whether the current level is adequate and would bring an application before the BCUC to support and request any proposed changes.

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[9] FBC response to BCUC IR2 5.4 (Exhibit B-8).

[10] FBC response to BCUC Confidential IR2 1.1 (Exhibit B-9).

36. For all these reasons, FBC urges the BCUC to approve the Hourly Service Adder at the proposed level.

PART FOUR: RATEPAYER IMPACT

37. The potential impact on all customers because of the implementation of the LCIR is a key consideration for FBC. While the ability for additional Large Commercial load to interconnect with the FBC system is a key driver for the rate, FBC would not proceed with the Program if there was an appreciable risk to existing customers.

38. For this reason, FBC has designed the rate in a manner, and included key provisions, that make the likelihood of a broader negative impact extremely remote. Included in these provisions are:

a. The Mid-C Price Cap, as previously discussed, which mitigates against power supply risk;

b. The 50 MVA Program cap which limits exposure associated with load;

c. The Hourly Service Adder which ensures a set amount of revenue associated with each kWh sold under the Program;

d. The requirement for LCIR Customers to fully fund all capital work required to take service under the rate (per RS 38 Special Condition 7); and

e. The requirement for LCIR Customers to provide FBC with a load forecast with billing that reflects that load forecast (per RS 38 Special Condition 3).[11]

39. In addition, FBC believes that the most likely use of the LCIR will be for the connection of entirely new load rather than the conversion of existing Large Commercial load to RS 38. RS 38 load attributable to new customers will almost certainly have a positive impact on rates. And, given the cost of marginal resources, there is no certainty that serving new or even existing customers on RS 30 or RS 31 has a positive margin. FBC discussed the importance of margin as opposed to revenue in its response

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[11] See the revised RS 38 – Attachment to BCUC IR1 25.1 (Exhibit B-3). This revision also resulted in the removal of the 80% load factor requirement; that requirement was not favoured by participants in the public engagement activities.

to BCUC IR1 17.2 (Exhibit B-3). In this context, it cannot be said with certainty that conversion of firm load to non-firm load would have a negative impact – even if overall revenue were to decrease.

40. The potential benefits of offering the LCIR greatly outweigh the risks associated with supplying power on a non-firm basis, which are extremely remote. The LCIR is a positive step for all customers and should be approved.

PART FIVE: REGULATORY EFFICIENCY AND OTHER REGULATORY CONSIDERATIONS

A. THE LCIR SHOULD BE A PERMANENT RATE

41. In the Application, FBC has requested that the LCIR be approved as a permanent rate. While FBC has acknowledged that the LCIR could be implemented on a pilot basis,[12] there are several reasons why approval as a permanent rate would be beneficial, including the following:

a. Customers may have un-recoverable costs related to alterations in the design of their facility to accommodate an interruptible form of service and may also have to add the necessary equipment to enable FBC-controlled interruptions. FBC does not believe that it would be fair, or attractive, for the Customer to make such investment without the knowledge that the rate is intended to be a permanent offering.

b. From a customer perspective, the future of a pilot rate is inherently less certain than a rate that has been approved on a permanent basis, and as such the Program's status as a pilot may unnecessarily deter participation.[13]

c. Regulatory efficiency is best served by a permanent rate, rather than a pilot project, since current market conditions may result in few if any customers electing to take service under the rate in the near term and the pilot period may expire before they do.

d. There is little downside since no rate is considered absolutely permanent and not subject to future changes up to and including termination.[14]

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[12] FBC response to BCUC IR1 19.2.1 (Exhibit B-3).

[13] FBC response to BCUC IR2 6.5 (Exhibit B-8).

[14] Ibid.

42. FBC is of the view that although the current level of Mid-C market prices may temper interest in the LCIR as a substitute for Retail Access, approval of the LCIR on a permanent basis such that it features in the Electric Tariff until such a time as a customer requests LCIR service, at no regulatory cost to any party, and without the need for an additional regulatory application process, is preferable to approval on a pilot basis.[15]

43. FBC continues to believe that the LCIR should be a permanent offering and requests approval on that basis. However, as stated in its response to BCUC IR1 19.2 (Exhibit B-3), FBC would still offer the rate were the BCUC to approve it on a pilot basis as long as the cap on total enrollment were maintained and the pilot period was sufficient in length (i.e., 3 to 5 years) to allow for market variation to be experienced and operational learnings to be obtained.

B. REPORTING REQUIREMENTS

44. As part of the IR process, a large number of potential items for inclusion in an LCIR Report were proposed by various parties including, but not limited to, the items discussed in BCUC IR1 26.1 and 26.2.

45. FBC has agreed that the list provided in BCUC IR1 26.2 is achievable, though some items may be costly to compile, as discussed in FBC's response to BCUC IR2 9.1.

46. In addition, FBC has confirmed that it would be able to provide, on a publicly available,[16] annual[17] basis information related to Mid-C and Mid-C Price Cap pricing,[18] market purchases,[19] and the margin associated with RS 38 sales.[20]

47. FBC believes that annual reporting is appropriate for certain basic information related to the LCIR, with other aspects of the rate suitable for more comprehensive reporting over a longer time frame. Rather than prescribing the contents of the LCIR reporting in the Final Order related to this Application, FBC recommends that it consult with BCUC staff on the form and content of these reports.

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[15] FBC response to BCUC IR2 7.1 (Exhibit B-8).
[16] FBC response to BCOAPO IR1 19.1 (Exhibit B-4).
[17] FBC response to BCUC IR2 9.2 (Exhibit B-8).
[18] FBC response to BCOAPO IR1 14.3 (Exhibit B-4).
[19] FBC response to BCOAPO IR2 36.2 (Exhibit B-10).
[20] FBC response to BCOAPO IR2 61.1 (Exhibit B-10).

C. SUMMARY OF REQUESTED APPROVALS

48. In accordance with the foregoing, FBC seeks an Order from the BCUC specifying that:

a. The rate and Rate Schedule 38 as amended for the Large Commercial Interruptible Service is approved on a permanent basis, effective 30 days from the date of this order.

b. FBC is directed file the Rate Schedule 38 tariff pages for endorsement by the BCUC within 15 days prior to the effective date.

c. FBC is directed to provide an annual LCIR report in the form specified by the BCUC in consultation with FBC no later than December 31, 2023 and on an annual basis thereafter.

49. ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated: February 14, 2023 ***[original signed by]***

Sarah Walsh