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January 11, 2023

Commercial Energy Consumers Association of British Columbia
c/o Owen Bird Law Corporation
P.O. Box 49130
Three Bentall Centre
2900 – 595 Burrard Street
Vancouver, BC
V7X 1J5

Attention: Mr. Christopher P. Weafer

Dear Mr. Weafer:

Re: FortisBC Inc. (FBC)

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

Response to the Commercial Energy Consumers Association of British Columbia (CEC) Information Request (IR) No. 2

On July 6, 2022, FBC filed the Application referenced above. In accordance with the further regulatory timetable established in British Columbia Utilities Commission Order G-331-22 for the review of the Application, FBC respectfully submits the attached response to CEC IR No. 2.

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

18. Reference: FBC Response to CEC IR 1.1.1[1]

> **INTRODUCTION, PROVINCIAL POLICY, LEGISLATIVE CONTEXT AND APPROVALS SOUGHT**
>
> **1. Reference: Exhibit B-1, PDF Page 5, Lines 12-13**
>
> Commercial customers, herein referred to as the Large Commercial Interruptible Rate (LCIR). As proposed, eligible customers could choose to take service using this optional interruptible rate for new or existing customers who would otherwise be eligible to receive service under either Rate Schedule (RS) 30 - Large Commercial Service – Primary, or RS 31 - Large Commercial Service – Transmission. The LCIR will 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. The LCIR is being proposed as a means to better utilize the transmission and/or primary distribution networks; offer a market-based rate option for customers; and further the province's energy objectives. Once approved, the LCIR would be referred to as RS 38 - Large Commercial Interruptible Service.
>
> 1.1 Please explain (by elaborating on all practical aspects) how the introduction of LCIR would lead to a better utilization of FBC's transmission and/or primary distribution networks.
>
> **Response:**
>
> In the context of the LCIR, better utilization of transmission and/or primary distribution networks simply means that FBC is able to attract additional load and generate additional revenue from existing assets. To the extent that additional revenue can be generated with a positive margin, there is a general mitigation of rates as fixed costs can be spread over more kWh.

18.1 How would the implementation of the proposed RS 38 – Large Commercial Interruptible Service affect the utilization of FBC's transmission networks in the event that RS 38 was unable to attract new load (i.e., only load switching to the LCIR occurs)? Please explain and quantify any impact on rates.

Response:

In the event the implementation of RS 38 resulted only in existing load served under RS 30/31 transitioning to interruptible service, and assuming the same loads, utilization of both the distribution and transmission systems would be unchanged. The impact on rates would depend on whether and the extent to which overall margin increased or decreased as a result.

18.2 How would the implementation of the proposed RS 38 – Large Commercial Interruptible Service affect the utilization of FBC's primary distribution networks in the event that RS 38 were unable to attract new load (i.e., only load switching to the LCIR occurs)?

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[1] Exhibit B-6, Page 1.

Response:

Please refer to the response to CEC IR2 18.1.

18.3 What system or market factors could lead to additional revenue being generated with a negative instead of a positive margin?

Response:

FBC provided a discussion of revenue versus margin in response to BCUC IR1 17.2. That discussion is repeated in part below.

> Moreover, overall revenue, whether on an individual or aggregate customer basis is not a useful measure by which to gauge the success of the LCIR, or to evaluate the impact to other customers. This assessment must also consider the cost side of the equation, including the cost of marginal resources required to meet incremental load. Marginal resources will be required to meet new load, whether that power is delivered pursuant to RS 30/31 at embedded cost rates, or under RS 38 where load is resourced and billed at a rate at least equal to the cost of the power. In the view of FBC, while it is natural to compare the revenues received under firm and non-firm rates, such a comparison disadvantages RS 38 since the resources required to meet the load in each case may be the same, but only RS 38 recovers revenue based directly on the cost of the resources involved and with the added ability to not serve the load should it become uneconomic to do so.

In simple terms, if the cost of acquiring and delivering the power required to meet load exceeds the rate revenue, a negative margin will result.

18.4 Please elaborate on all factors affecting additional revenue expectations directionally or quantitatively, where possible.

Response:

Incremental revenue that can be realized through the implementation of the LCIR is influenced by such factors as the mix of RS 38 and RS 30/31 load that results, the overall increase in load if any, the service parameters such as the Mid-C Price Cap, and the level of Mid-C prices. While FBC expects that under the most likely RS 38 scenario where new load to FBC is added on RS

38, overall revenue would rise, the potential variation in all of the inputs makes quantifying the increase difficult.

19. Reference: FBC Response to CEC IR 1.1.5[2]

> 1.5 Please explain whether higher or lower ICE Mid-C prices (as compared to customer-designated price caps) would affect the utilization of FBC's transmission and/or primary distribution networks? How so?
>
> **Response:**
>
> The relative level of the Mid-C market price to Mid-C Price Cap will impact the utilization of the FBC system to the extent that customer interruption is increased. For example, where the Mid-C market price exceeds the Mid-C Price Cap such that the Customer is interrupted, power to the Customer would cease to flow and network use would be reduced.

19.1 What level of forecast customer service interruption due to Mid-C Price Cap, is embedded in the RS 38 design?

Response:

The design of RS 38 incorporates pricing related to a market-based service and does not incorporate any assumptions on the number of interruptions.

19.2 What level of customer service interruption would FBC consider acceptable from a network use perspective, for purposes of its RS 38 design?

Response:

The design of RS 38 does not depend on the level of service interruptions. The frequency and duration of interruptions that are acceptable will vary by customer. From a network utilization perspective, FBC has proposed RS 38 in part with the expectation that utilization will increase but has not defined what level of increase is acceptable. FBC intends to review such aspects of the rate when it conducts its review for filing with the BCUC and will be in a better position to compare utilization and impact at that time.

19.3 Are there incremental network costs associated with the increased interruptibility of a potential RS 38 customer? Please explain and quantify the estimated costs, including how such costs are accounted for in the RS 38 design?

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[2] Exhibit B-6, Page 2.

Response:

Please refer to the Supplemental Information provided in Exhibit B-2, Section 5 for a discussion of costs associated with LCIR service. As noted there, costs related to taking interruptible service are the responsibility of the Customer and are not specifically included in the RS 38 charges.

20. Reference: FBC Response to CEC 1.3.3[3]

3.3. Please explain what type of factors impact FBC's ability to add 'significant capacity' to its existing system?

Response:

Projects to add significant capacity to the system are primarily driven by the load forecast.

In most cases, FBC has the ability to add system capacity in response to a Customer's request given adequate time and the funding required to add to or upgrade existing infrastructure. Factors that impact timing and cost are planning requirements, permitting and regulatory requirements, land requirements, engineering, material procurement, and construction.

20.1 How does FBC consider interconnection requests for the connection of non-location specific loads of an order of magnitude of 5 MW in its planning studies?

Response:

FBC does not consider non-location specific loads in its planning studies since these are preliminary inquiries that have not progressed to the point of likely interconnection. A planning study cannot be conducted without the location of the load being finalized.

20.2 What is FBC's obligation to serve with respect to non-location specific loads?

Response:

FBC assumes a "non-location specific" load to be in the nature of a general inquiry related to potential locations that may be suitable for a load of a specific size and characteristics.

While FBC does field such general inquiries, there can be no notion of an obligation to serve until a customer request is formalized through the appropriate process, which would include a defined location and a requirement for a customer contribution, if any. FBC does not have an obligation to serve non-location specific loads.

20.3 What, if any, planning studies is FBC required to conduct in order to address the needs of interconnection requests for non-location specific loads?

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3 Exhibit B-6, Page 5.

Response:

None. The Interconnection Request process is only undertaken when a customer requests to add a new load, greater than 5,000 kW, at a specific location in the system. However, if a potential customer were to come to FBC with a general question as to what part of the system would be best to try to locate a new facility on, FBC would provide general guidance. This guidance does not require a planning study.

20.4 Please confirm if non-location specific loads inform FBC's interconnection studies, area studies and/or long-term planning studies.

Response:

FBC's most recent capital plan is informed by system studies that identify projects required to accommodate projected future load growth. This does not include non-location specific loads which, for the period during which they remain non-location specific, by their nature cannot proceed to interconnection.

20.5 How do non-location specific loads inform FBC's interconnection studies, area studies and/or long-term planning studies?

Response:

Please refer to the response to CEC IR2 20.4.

21. Reference: FBC Response to CEC IR 1.4.1[4] and CEC IR 1.2.2[5]

4. Reference: Exhibit B-1, PDF 10, Lines

The LCIR, as it is proposed, will allow FBC customers to purchase power at prices that are based on the market cost, with a component (the Transmission Adder) that will cover costs associated with the use of the transmission system that has been funded by all customers over time. It therefore provides an alternative to the previously approved, but not currently available, Retail Access.

4.1 Please discuss what impact (if any) would the introduction of LCIR by FBC have on FBC's current offering of non-firm service to large commercial customers.

<u>Response:</u>

FBC does not have a current non-firm service offering to Large Commercial Customers (with the exception of non-firm point-to-point transmission service that is not currently available as explained in Section 2.4 of the Application).

2.2. Please explain if there are any parallels between the proposed RS 38 and FBC's existing RS 37.

<u>Response:</u>

RS 38 and RS 37 are distinct services. RS 37 is FBC's Stand-by Service. It is a Back-Up and Maintenance Service intended for and available only to those Customers that normally supply all or some portion of load from self-generation. RS 37 provides the Customer with a firm supply of electric power and energy when the Customer's generating facilities are not in operation or are operating at less than full rated capability. Both rates have a component of billing that is based on Mid-C pricing.

21.1 Does FBC expect the introduction of RS 38 to impact the service it provides to its existing customers under RS 37?

<u>Response:</u>

No, FBC does not expect the introduction of RS 38 to impact the service it provides to its existing customers under RS 37.

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[4] Exhibit B-6, Page 8.
[5] Exhibit B-6, Page 3.

22. Reference: FBC Response to CEC IR 1.5.1[6] and CEC IR 1.8.1[7]

5.1 Under the 'Description' Column in Table 3-1, in the row titled 'Energy Rate', FBC states: 'The price cap serves to limit the exposure… during periods of extreme high market prices. As FBC uses the word 'limit' the exposure 'of FBC to the risk of having to recover power purchase costs…' and not 'mitigate' such risk or 'eliminate' such exposure, please describe in what situations would FBC assume risk (if at all) on behalf of FBC commercial customers related to purchasing of electricity in the ICE Mid-C, for use in its LCIR offering.

Response:

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. There is a slight risk that FBC will fail to recognize, anticipate, or react to any price disparity, but this is not an element of the Program. There is also a somewhat higher risk, but still very low, related to FBC not purchasing market electricity to supply LCIR Customers. It is possible that the alternative supply arrangements could end up costing more than the market price on any given day. Averaged out over the course of a longer time period this is not expected to be the case.

8. Reference: Exhibit B-1, PDF 16, Lines 18-28

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.

This category 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. These interruptions are not an automatic reaction to a pricing disparity, since FBC has operational flexibility regarding the resources utilized to serve load. FBC will optimize its overall system resources and as a result, even if the market price is above the Mid-C Price Cap, FBC may elect to maintain supply to the LCIR customer at an Energy Charge that reflects the Mid-C Price Cap. Nevertheless, FBC reserves the option to suspend service until it can again serve the load in an economic fashion.

8.1 Can FBC further elaborate on the upper ranges of ICE Mid-C prices that FBC anticipates it will be able to absorb into its system, in order to supply LCIR load, if such prices were to exceed customer-specific Mid-C price cap nominations?

Response:

Please refer to the response to BCUC IR1 9.1. The upper ranges of Mid-C Price Cap nominations are going to be related to credit limits, both between the LCIR Customer and FBC as well as between FBC and Powerex. FBC will not be purchasing Mid-C power above the Mid-C Price Cap to serve the LCIR Customer.

22.1 Please confirm whether RS 38 customer interruptions will be an automatic reaction to a pricing disparity (i.e., Mid-C versus Mid-C price cap), or whether FBC intends to rely on other assessments or analysis to inform its customer interruptions.

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6 Exhibit B-6, Page 9.

7 Exhibit B-6, Page 14.

Response:

FBC reserves the right to continue to supply even if the Mid-C price is above the Mid-C Price Cap. The source of the power to meet the LCIR load will not always be the Mid-C market. The market is used to set the price paid by the LCIR Customer but may or may not be the actual source of the power used to supply the load. If FBC believes it has sufficient available energy and capacity to economically meet the load, then FBC expects that supply would be maintained.

22.2 Please describe any alternative supply arrangements that FBC could employ to continue to supply an LCIR customer (i.e., to not interrupt in reaction to a pricing disparity), were it to not purchase market electricity to supply LCIR customers.

Response:

FBC has a number of options to maintain supply. However, in general two things must be true in order for FBC to consider maintaining service. First, FBC must have surplus capacity available and second, FBC must have access to economic energy. The first is often the case for much of the year while the second may or may not be the case. For example, if annual loads are running well above plan, it is not likely that FBC will have available energy to spare even if surplus capacity is available. However, if annual loads are running well below plan, even though there is an expensive day for market prices, FBC may well have economic energy available. If these two conditions are not met, then FBC will be relying on market supply and would not supply if the market price was above the Mid-C Price Cap.

22.3 Under RS 38, would FBC be liable for the physical supply of energy to an LCIR customer pursuant to a pricing disparity (i.e., Mid-C higher than the Mid-C price cap), and if so, under what system circumstances?

Response:

No, FBC would not be liable.

22.4 Under what circumstances, if any, would FBC opt to cease its RS 38 offering to an LCIR customer?

Response:

Given the context of the preceding questions, FBC assumes that this request refers to FBC determining that a Customer can no longer take service under RS 38.

As with any rate schedule, the Customer must continue to meet the criteria outlined in the Availability section of the RS 38 tariff sheets, as well as remaining in compliance with the Special Conditions and the terms of the Contract for Interruptible Service.

More generally, the FBC Electric Tariff contains terms that apply to all Customers related primarily to operating standards and bill payments.

23. Reference: FBC Response to CEC IR 1.8.3[8]

8.3 Please explain what role FBC envisions the nominations of ICE Mid-C price caps by LCIR customers will play in its LCIR load interruption decisions, if pricing disparity was one of several (many) considerations.

Response:

FBC envisions the Mid-C Price Cap will be the critical consideration in regard to the ability to source power to meet LCIR load.

23.1 What other considerations will FBC use to inform its LCIR customer supply decisions?

Response:

Please refer to the response to CEC IR2 22.2.

23.2 How will FBC use considerations, other than the critical consideration, to inform its LCIR customer supply decisions?

Response:

Please refer to the response to CEC IR2 22.2.

23.3 Within what decision timeframe(s) will FBC consider other factors, in addition to the critical consideration, to inform its LCIR customer supply decisions?

Response:

FBC has a very limited window of time available between when FBC is informed that power has not been purchased to serve an LCIR customer and when that situation must be communicated to the LCIR customer. Given the complexity of the required analysis to determine if FBC should maintain supply or not, FBC expects that this analysis will be done in advance of a decision being required.

[8] Exhibit B-6, Page 15.

24. Reference: FBC Response to CEC IR 1.6.1[9]

> **6. Reference: Exhibit B-1, PDF Page 13, Lines 5-17**
>
> For operational purposes there may be cases where a customer has one point of interconnection (POI) with FBC but has its total load split and separately metered downstream of the POI such that a portion is served under the LCIR, and a portion is served under another rate schedule. For example, a Large Commercial customer that would otherwise have a 3,000 kVA load served entirely under RS 30 - Large Commercial Service – Primary, may work with FBC to design a system downstream of the initial POI with FBC where 2,500 kVA is to be served under the LCIR, and 500 kVA remains on RS 30. In this case, it would be unfair to assess two Customer Charges, since only a portion of the Customer Charge is directly related to customer service functions such as billing or metering reading. FBC acknowledges that in these situations, there will be some work associated with additional meter reading and billing elements, but these incremental costs are not significant and FBC considers that the second Customer Charge can be waived without any material impact on remaining customers. This feature of the rate is addressed by the following language included in the tariff sheet:
>
> **6.1 Please provide the forward ICE Mid-C price curve(s) in use by FBC and which may have informed the development of FBC's LCIR.**
>
> **Response:**
>
> FBC did not use any forward ICE Mid-C price curve(s) to inform the development of the LCIR.

24.1 If FBC does not use Mid-C forward price curves to inform the design of the LCIR, then please explain on what basis FBC assesses the desirability of FBC's RS 38 program, and please provide what has informed its initial uptake potential in terms of customer #s & load requirement and what has informed the initial 50 MW limit.

Response:

FBC stated in the Application at page 16 that it, "… has no firm commitment from potential customers that would allow it to suggest with certainty the eventual uptake of interruptible service. However, based on discussions with potential customers, the Company is confident that it will have participants should the service become effective."

In response to BCOAPO IR1 20.1 FBC noted that the 50 MVA Program cap represents a level of load that FBC is confident that it can manage as discussed in the Supplemental Information Question 8.

24.2 Pease explain on what basis FBC assesses the costs it will incur, and/or with the benefits it will draw, from offering market-based energy supply to LCIR customers?

[9] Exhibit B-6, Page 11.

Response:

It is unclear to FBC what additional information can be provided regarding anticipated costs and benefits that could result from the implementation of the LCIR beyond what has been provided in the Application, the Supplemental Information provided in Exhibit B-2 and the responses to the first round of IRs.

Generally speaking, FBC anticipates that the benefits are those discussed in Section 2 of the Application, and since LCIR Customers are responsible for capital costs associated with taking service under the rate, the ongoing costs that FBC expects to offset with RS 38 revenue are primarily associated with power purchases and transmission, as well as administration.

FBC has discussed assessment of the rate in relation to the reporting requirements in the responses to BCUC IR1 26.1 and 26.2.

25. Reference: FBC Response to CEC IR 1.15.1[10]

15. Reference: Exhibit B-1, Appendix C, PDF Page 42

Eligible Customers

The FBC LCIR will be available to:

New or Existing Customers served under:

- Large Commercial Primary – Rate Schedule 30;
- Large Commercial Transmission – Rate Schedule 31.

15.1 Please provide a summary of FBC aggregate interconnection queue demand (in MW) for new customers requesting to receive service under RS 30.

Response:

Please refer to the response to BCUC IR1 1.1.

Aggregate interconnection queue demand for new Customers requesting to receive service under RS 30 is approximately 50 MW.

25.1 Please explain whether the relative size (~50 MW) of aggregate interconnection queue demand for new customers requesting to receive service under RS 30 informed FBC's proposed initial offering of 50 MW under RS 38.

Response:

No, the aggregate interconnection queue was not a factor in setting the initial Program offering.

[10] Exhibit B-6, Page 23.

26. Reference: FBC Response to CEC IR 1.14.1[11] and CEC IR 1.1.4[12]

14. Reference: Exhibit B-1, PDF Page 24, lines 4-15

The LCIR requirement for customers to maintain an 80 percent load factor is an impediment for some facilities in terms of participating in the rate; however, it is an important element of the LCIR. The LCIR is based on day-ahead block market pricing rather than hourly real-time pricing. This is to ensure that there is sufficient time to communicate and confirm supply for LCIR customers and for LCIR customers to then make the necessary plans to manage their process. FBC expects to generally plan to obtain supply on a block basis and this needs to be matched by the corresponding load. FBC will closely monitor this over the initial implementation period to determine if the 80 percent required load factor is sufficient or if it must be increased to ensure that the power purchased for the LCIR customer is consumed by the LCIR customer.

FBC may be willing to consider waiving the 80 percent requirement if warranted by individual customer circumstances and/or if LCIR customers are prepared to compensate FBC for losses associated with power purchased for, but not consumed by, LCIR customers

14.1 For purposes of maintaining an 80% Load Factor, please explain what methodology FBC will employ to establish the Load Factor for those potential LCIR customers that are not presently FBC customers (i.e. for new FBC customers).

Response:

Please refer to the response to BCUC IR1 25.1 and Attachment 25.1 provided in that response for revisions to RS 38 that address the 80 percent Load Factor requirement.

1.4 Please discuss the (order-of-magnitude) impact(s) that the proposed 50 MW of total connected interruptible load would have on the utilization of FBC's transmission and/or primary distribution networks.

Response:

Please refer to the response to BCSEA IR1 3.3.

FBC expects that if 50 MW of LCIR load at 100 percent load factor is added to the system but is all interrupted at the time of the system peak, then the system load factor would improve by approximately 6 percent calculated as follows:

50 MW LCIR load / 777 MW 2021 system peak load

26.1 In response to BCUC IR 1.25.1, FBC explains that the initially proposed minimum 80% load factor requirement can be removed from RS 38 schedule, in light of proposed changes to its tariff special provision #3 (SP #3).[13] Please explain what average load factor FBC expects with regards to the initial 50 MW LCIR offering over the first 12 months of RS 38.

[11] Exhibit B-6, Page 21.
[12] Exhibit B-6, Page 2.
[13] Exhibit B-3, Page 89.

Response:

FBC is not making a prediction of what the average load factor will be. However, based on the type of customers who are likely most interested in the LCIR rate, FBC expects that the load factor should be above 80 percent.

Again, the important consideration is that FBC receive accurate load forecasts from the customer so that the correct amount of market power can be purchased.

26.2 Please provide an updated improvement to the system load factor associated with a “other-than-100%” load factor for the initial 50 MW of LCIR load, consistent with FBC’s expectations of the average load factor for LCIR load over the first 12 months of RS 38.

Response:

While FBC is not making a prediction as to what the average load factor may be, if 80 percent load factor is used then the increase in system load factor would be approximately 5 percent.