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July 6, 2022

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

Attention: Mr. Patrick Wruck, Commission Secretary

Dear Mr. Wruck:

Re: FortisBC Inc. (FBC)

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

FBC attaches for review by the British Columbia Utilities Commission, FBC's Application for Approval of a Large Commercial Interruptible Rate.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only) Registered Interveners in the FBC Annual Review for 2022 Rates



FORTISBC INC.

**Application for Approval of a Large
Commercial Interruptible Rate**

July 6, 2022

Table of Contents

1.	INTRODUCTION, PROVINCIAL POLICY, LEGISLATIVE CONTEXT AND APPROVALS SOUGHT	1
1.1	Introduction.....	1
1.2	Provincial Policy and Legislative Context.....	1
1.3	Approvals Sought	2
1.4	Proposed Regulatory Process	2
2.	RATIONALE FOR NEW INTERRUPTIBLE RATES	3
2.1	Eligible Customers Can Connect Where Capacity Would Otherwise Not Be Available.....	3
2.2	Increase the System Load Factor	4
2.3	Cost Savings and Bridge to Firm Rates	4
2.4	External Constraints on Existing Transmission Service	5
3.	THE LARGE COMMERCIAL INDUSTRIAL RATE (LCIR)	7
3.1	Rate Design Elements	7
3.1.1	Key Features of the LCIR	7
3.2	LCIR Rate Schedule Details	8
3.2.1	Pricing	8
3.2.2	Bill Calculation Example	11
3.2.3	Reasons for Interruption	11
3.3	Economic Justification and Ratepayer Impacts	12
4.	DISCUSSION	14
4.1	Discussion of Risk.....	14
4.2	Implementation Considerations.....	15
4.2.1	Eligibility	16
4.3	Bonbright Principles Assessment.....	16
5.	CUSTOMER ENGAGEMENT	19
6.	CONCLUSION	21

List of Appendices

- Appendix A** Draft Interruptible Rate Schedule 38
- Appendix B** LCIR Bill Examples
- Appendix C** Consultation Materials
- Appendix D** Draft Orders

Index of Tables and Figures

Table 1-1: Proposed Regulatory Process	2
Table 3-1: Summary of Large Commercial Interruptible Rate Features	7
Table 5-1: Bonbright Principles Assessment	17
Table 6-1: LCIR Customer Engagement.....	19

1. INTRODUCTION, PROVINCIAL POLICY, LEGISLATIVE CONTEXT AND APPROVALS SOUGHT

1.1 INTRODUCTION

FortisBC Inc. (FBC) is filing this Application to seek approval from the British Columbia Utilities Commission (BCUC) to provide a new service and rate offering for interruptible service to its Large 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.

1.2 PROVINCIAL POLICY AND LEGISLATIVE CONTEXT

The business rationale for offering interruptible service is described in Section 2.1 of this Application. In addition to the business rationale, interruptible service directly supports two of the British Columbia energy objectives contained in Part 1, Section 2 of the *Clean Energy Act* (CEA). These are:

2(k) to encourage economic development and the creation and retention of jobs; and

2(m) to maximize the value, including the incremental value of the resources being clean or renewable resources, of British Columbia's generation and transmission assets for the benefit of British Columbia.

With regard to energy objective 2(k), an interruptible service offering would create the opportunity for additional large customers to connect or add load to the FBC system, allowing for new or expanded operations and employment opportunities which would contribute directly to increased economic activity within the FBC service area.

The portion of energy objective 2(m) that speaks to maximizing the value of British Columbia's generation and transmission assets is one of the key reasons for developing interruptible rates, as discussed in Section 2.2 of this Application.

1.3 APPROVALS SOUGHT

FBC seeks an order approving, on a permanent basis, the LCIR as shown in RS 38 - Large Commercial Interruptible Service contained in Appendix A of this Application, to be effective at least 30 days from the date of the order. Draft procedural and final orders are provided in Appendix D.

1.4 PROPOSED REGULATORY PROCESS

FBC has consulted with customers and intervener groups since the initial stages of development of the LCIR, and the final proposed form of RS 38 reflects these discussions. RS 38 is uncomplicated and leads to increased customer choice. For these reasons, FBC believes that the Application can be disposed of with one round of information requests by both interveners and the BCUC, followed by an exchange of written final submissions and FBC's reply submission. FBC suggests the following regulatory timetable.

Table 1-1: Proposed Regulatory Process

Action	Date (2022)
Intervener registration deadline	Thursday, August 4
BCUC Information Request (IR) No. 1 to FBC	Thursday, August 25
Intervener IR No. 1 to FBC	Thursday, September 1
FBC responses to IRs No. 1	Thursday, September 29
FBC Final Submission	Thursday, October 6
Intervener Final Submission	Thursday, October 13
FBC Reply Submission	Thursday, October 20

Section 2 of the Application describes the rationale for offering interruptible service to Large Commercial customers. Section 3 describes the elements of the Company's proposal for RS 38 - Large Commercial Interruptible Service in detail. Section 4 provides a discussion of the implementation of the LCIR including risks, eligibility, and a Bonbright Principles assessment. Section 5 covers the public engagement that preceded filing the Application and Section 6 concludes the Application.

2. RATIONALE FOR NEW INTERRUPTIBLE RATES

Interruptible service¹ offerings are relatively common in the utility industry in North America. However, the form and basis for such rates vary widely by jurisdiction or utility.

As with other rates and programs offered by FBC, interruptible service should meet the needs of both participating customers and FBC within the specific environment and context in which both operate. At the same time, regard must be had to the interests of non-participating customers. FBC considers whether there are any negative impacts on non-participants from its proposed interruptible service offerings and, if there is the potential for any such impact, whether it is balanced by the opportunity for non-participants to realize benefits that may result.

There are 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 cannot currently be offered due to external circumstances.

Each of these points is discussed briefly in the following sections.

2.1 *ELIGIBLE CUSTOMERS CAN CONNECT WHERE CAPACITY WOULD OTHERWISE NOT BE AVAILABLE*

Since October 2017, FBC has received numerous large capacity requests for data centres (e.g., cryptocurrency mining), cannabis production, new municipal projects, large customer developments, and forestry-related load throughout the FBC service territory. These requests have ranged from 1 Megawatt (MW) to 100 MW. While the FBC system can accommodate many of the smaller of these requests, it was not designed for the addition of the larger load interconnections.

Some areas of FBC's distribution and transmission systems have very limited incremental capacity and it has either been challenging or not possible to accommodate large capacity requests. While in normal operation many transmission lines can accommodate some additional load, limitations can arise in consideration of single contingency (N-1) planning criteria.

¹ For simplicity, FBC refers to interruptible service and interruptible rate interchangeably when referring to the LCIR.

Mandatory Reliability Standards (MRS) for the Bulk Electric System require that after the loss of a single element (transmission line, transformer, or generator), the system shall be within emergency ratings and voltage limits and no loss of load shall occur.² For non-radial lines and radial lines with an alternate source, FBC seeks to supply 100 percent of the load for the loss of a single element where practical. Mitigating these constraints and accommodating the load often requires upgrading substation capacity and/or reconductoring transmission lines. There are high capital costs associated with either of these solutions.

Because service to firm-load customers would be maintained, an interruptible rate, which is offered on a non-firm basis, would allow FBC to connect new large-load customers where the normal (N-1) standard would otherwise prevent FBC from doing so.

2.2 INCREASE THE SYSTEM LOAD FACTOR

Interruptible service will lead to an increase in the load factor on the overall FBC system in two ways:

1. By adding new non-firm load that would otherwise be unable to connect; and
2. By customer request, converting some or all of their existing firm load to non-firm and thereby allowing additional firm load to connect to the FBC system.

Each of these scenarios would potentially provide incremental revenue without the cost of additional infrastructure that would otherwise be needed to support it. This situation provides rate mitigation for all customers.

2.3 COST SAVINGS AND BRIDGE TO FIRM RATES

Large Commercial customers operate in competitive industries. These customers have communicated clearly to FBC that energy costs are a significant portion of overall operating expenses and that controlling or reducing these costs is a high priority.

Customers are unlikely to expose their operations to interruptions due to utility service suspensions without the opportunity to benefit from reduced energy bills. RS 38 provides a mechanism for achieving such a benefit, albeit dependent on the level of market rates.

However, interruptible rates may provide an interim step that allows customers to connect to the utility system in the short term, with the goal of taking firm service in the future once required upgrades have been completed. This opportunity for interruptible service reflects the avoidance of the long lead time due to the necessary capital planning and construction activities required to add significant capacity to the existing FBC system.

² See Reliability Standard TPL-001-4, made effective in BC through Order R-27-18A.

The structure of RS 38 is intended to allow for a meaningful reduction in energy costs in exchange for providing FBC the rights set out in the rate schedule to interrupt service as required, with acknowledgement that cost savings will be dependent on market prices. The details of the rate structure are provided in Section 3.2 of this Application.

2.4 EXTERNAL CONSTRAINTS ON EXISTING TRANSMISSION SERVICE

FBC has had in place since 1999 (pursuant to BCUC Orders G-27-99 and G-28-99) an Open Access Transmission Tariff (OATT) and related rate schedules that, subject to the external constraints discussed below, enable Large Commercial and Wholesale customers to use the FBC transmission system to wheel power purchased from third parties to the location of their load within the FBC service area. An arrangement that allows for use of the transmission system by end-use customers is generally referred to as Retail Access.

Pursuant to BCUC Order G-12-99, the rates for this service and the equivalent service offered by BC Hydro were harmonized such that the customer would only pay the rates of the utility in whose service area the load was located in cases where power needed to be wheeled through both service areas.

However, Section 7 of Direction No. 8 to the British Columbia Utilities Commission, BC Reg 24/2019, contains the following language with respect to Retail Access:

Retail access

Except on application by the [BC Hydro and Power] authority, the commission must not set rates for the authority that would result in the direct or indirect provision of unbundled transmission services to retail customers in British Columbia, or to those who supply such customers.

Until recently, the position of BC Hydro with regards to the impact of Special Direction 8 (and the similar wording of the preceding Special Direction 7) on the customers of FBC was as stated in the Evidence of BC Hydro in the *FortisBC Inc. 2017 Cost of Service Analysis and Rate Design Application*.³

The result of the foregoing is that there is no retail access in BC Hydro's service territory and BC Hydro retail load customers cannot use the BC Hydro OATT for retail access. The removal of retail access in BC Hydro's service territory did not impact potential FortisBC retail access customers. (Emphasis added)

However, in the British Columbia Utilities Commission Indigenous Utilities Regulation Inquiry Final Report dated April 30, 2020, the Panel stated on page 77:

³ Exhibit C1-3, page 4, lines 12-15. (These comments were based on Special Direction No. 7 which contained similar language regarding Retail Access).

1 In the Panel's view, the wording of Direction 8 does not differentiate between BC
2 Hydro's retail customers or retail customers of any other public utility. Direction 8
3 does not limit customers to be a retail customer of any particular public utility,
4 simply that they be a retail customer. Neither the term "Retail Customer" nor the
5 term "retail" is defined in the Direction 8, the Hydro and Power Authority Act, the
6 UCA or the Interpretation Act. However, the Oxford dictionary defines "Retail" as:

7 *The sale of goods to the public in relatively small quantities for use or*
8 *consumption rather than for resale*

9 We therefore interpret Direction 8 to preclude the use of BC Hydro's transmission
10 system to wheel electricity to any customer who will directly consume that
11 electricity in British Columbia whether it is a customer of BC Hydro or another
12 public utility.

13 Given this, BC Hydro has communicated to FBC that while BC Hydro maintained its previous
14 position during the Indigenous Utilities Regulation Inquiry process, the Panel's view expressed in
15 the Final Report effectively precludes BC Hydro from allowing the use of its transmission system
16 in the provision of Retail Access to the customers of FBC.

17 Since power originating from outside of the FBC service area cannot practicably be delivered to
18 a load within the FBC service area without the use of the BC Hydro system, Retail Access is
19 effectively unavailable to FBC customers, despite FBC having the BCUC-approved rate
20 schedules intended to support the practice.⁴

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

⁴ Use of the FBC Transmission Service rate schedules is still possible to wheel power that is both produced and consumed within the FBC service area, or to export power generated within the FBC service area to points of delivery beyond the FBC service area.

3. THE LARGE COMMERCIAL INDUSTRIAL RATE (LCIR)

3.1 RATE DESIGN ELEMENTS

3.1.1 Key Features of the LCIR

Table 3-1 below contains a high-level summary of the key features of the LCIR. Further detail on a number of the listed elements follows the table.

Not all of the key aspects relevant to the LCIR will appear in the RS 38 tariff pages. This is because the interruptible rate program leverages existing processes and information contained in pre-existing standards and business practice documents that are available on the FBC website and that will be discussed with potential customers in advance of and during the application process. The same processes and information are applied, for example, to any connected load of 5,000 kW or where a customer seeks to build, own, and operate its own electrical substation and transmission line connected to FBC's transmission system. In this way, should applicable standards or processes change independent of the elements of the LCIR that are specific to only that rate, further processes before the BCUC would not be required. Table 3-1 therefore contains points relevant to the LCIR, but additional detail regarding some of these points, such as the application process common to this and other rates, can be found in other FBC documentation.

Table 3-1: Summary of Large Commercial Interruptible Rate Features

Feature	Description
Application Process	Potential LCIR customers will apply pursuant to the current Industrial Electricity interconnection process and Application forms, ⁵ working with a Key Account Manager.
Energy Rate	<p>The LCIR includes a market-based rate tied to the ICE Mid-C index. A number of adjustments to the index price are made for transmission, administration, losses, and potentially, for the procurement of clean and renewable power as discussed in Section 3.2.1.2 of this Application.</p> <p>In addition, a key feature of the LCIR is the inclusion of a “price cap” that will limit the maximum energy rate charged in a given hour. The price cap serves to limit the exposure of the Interruptible Customer to extremes in market prices, and of FBC to the risk of having to recover power purchase costs from customers during periods of extremely high market prices.</p>
Demand Charge	As the LCIR is non-firm and interruptible, there is no demand charge component to the LCIR.
Customer Charge	The LCIR Customer Charge is the same as other respective Large Commercial rates.

⁵ The current application form can be found online:
https://www.cdn.fortisbc.com/libraries/docs/default-source/services-documents/interconnection-request-form.pdf?sfvrsn=cb2df626_2.

Feature	Description
Notice	FBC does not guarantee that prior notice of a pending or potential Interruption will be provided in any or all cases. However, FBC will endeavor to provide notice, where practicable.
System Costs	All costs associated with interconnection of load that will be taken under the LCIR are the responsibility of the customer.
Reasons for Interruption	<ol style="list-style-type: none"> 1. To maintain service to Customers taking service under any of FBC's other rate schedules that are not designated as non-firm. 2. To avoid any third-party charges that may be levied against FBC related to Imbalance Energy. 3. To maintain the stability, reliability, or integrity of the FBC or Western interconnected electrical systems. 4. Lack of available transmission. 5. For Hours where FBC 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 the RS 38 rate schedule, FBC may interrupt the Customer.
Transition	Subject to certain conditions, the Interruptible Customer may transition between firm service and the LCIR. These conditions are set out in the rate schedule.

3.2 LCIR RATE SCHEDULE DETAILS

This section of the Application generally follows the organization of the Interruptible Rate schedule provided as Appendix A to this Application and provides additional detail on the aspects of the rate contained in the tariff sheets.

3.2.1 Pricing

Monthly billing for an Interruptible Customer will include a Customer Charge and an Energy Charge. Notably, 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.

3.2.1.1 Customer Charge

The Customer Charge for an Interruptible Customer is proposed to be the same as contained in the rate schedule the customer would normally be eligible for. FBC does not believe that for an Interruptible Customer the costs associated with customer service functions such as billing or meter reading would be much different, if different at all, than for other Large Commercial customers.

As of January 1, 2022, the existing Customer Charges are:

- For Customers otherwise eligible for Rate Schedule 30: \$1030.68 per Month

- For Customers otherwise eligible for Rate Schedule 31: \$3,366.02 per Month

The Customer Charge will be subject to review during FBC's rate setting applications and would be updated to reflect any resulting general change in the level of rates as approved by the BCUC from time to time.

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:

In cases where the Interruptible Customer chooses to have only a portion of its total load served under this Rate Schedule [RS 38] and is therefore paying the above charges pursuant to the billing associated with the firm portion of its load, the Customer Charge billed under this rate schedule will be zero (\$0.00).

3.2.1.2 Energy Charge

The LCIR energy charge is based on the Intercontinental Exchange (as defined above, ICE) Day Ahead Mid-Columbia (as defined above, Mid-C) Index for the applicable day of energy flow. The charge is based on actual energy flows in the On-peak and Off-peak hours multiplied by the On-peak and Off-peak day ahead index prices. To this base price, additional charges are added to represent costs associated with system technical losses, and for use of the transmission system. In addition, depending on whether the BCUC approves a related request contained in the Company's Long-Term Electric Resource Plan (LTERP), a Clean Market Adder may also be billed. The Clean Market Adder is discussed further in Section 3.2.1.2.2.

The LCIR tariff sheet describes the Energy Rate provision as follows:

Interruptible Customers taking service on this rate will be billed an Energy Charge in each Billing Period equal to the sum of Hourly Energy Charges determined as follows:

- (i) For a Peak Hour, the Intercontinental Exchange (ICE) Day Ahead Mid-Columbia Peak Index for the applicable day of flow in \$/MWh; and For an Off-Peak Hour, the Day Ahead Mid-Columbia Off-Peak Index for the applicable day of flow in \$/MWh (in either such case, the "applicable Mid-C Price"). In Hours in which the

applicable Mid-C Price is negative, a value of \$0.00/MWh will be used. 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; and

(ii) System losses as per Rate Schedule 109;

(iii) Hourly Service Adder of \$0.01000 per kWh; and

(iv) Clean Market Adder (CMA)*

The Hourly Energy charge is calculated as:

$(\text{Energy Taken (kW.h)} \times (1 + \text{loss rate } \%)) \times (\text{applicable Mid-C Price} + 0.0100 + \text{CMA})$

* The CMA is currently \$0.00 per kW.h and will be adjusted based on applicable BCUC determinations.

With regard to the cap on the Mid-C price that factors into the Energy Charge for a particular customer, the Mid-C Price Cap would be nominated by the Customer based on its specific risk tolerance and operational needs. This is a departure from the final discussions held with customers and intervenor groups during public engagement, where the cap was originally going to be a set number, common to all customers. A customer-specific cap was discussed, and was viewed positively by participants, but was dismissed due to what FBC saw as a high administrative burden at the time. However, upon further review, FBC now views a customer-specific cap as manageable and offering the most flexibility for customers to tailor the LCIR to their specific needs. The customer may nominate the Mid-C Price Cap monthly by providing FBC with the maximum Mid-C price it is willing to pay by the 20th day of the preceding month.

The level of the Mid-C Price Cap nomination made by the customer, even if relatively high, will not impose a risk on FBC that cannot be mitigated by the existing security deposit provisions that will ensure that FBC holds a deposit sufficient to provide payment for an estimate of the total bill for the two highest consecutive months consumption of electricity by the applicable premises.

3.2.1.2.1 HOURLY TRANSMISSION CHARGE ADDER

The Hourly Transmission Charge Adder is intended to acknowledge that power purchased under the Interruptible Rate program requires transmission to the point of delivery with the interruptible customer. It is not set to exactly equate to the charges that would result if the power were transmitted under Retail Access, but will cover the transmission costs, grossed up to provide a moderate additional benefit for non-participating customers. The Hourly Transmission Charge Adder will be subject to any general rate adjustment that flows from future rate setting processes.

3.2.1.2.2 CLEAN MARKET ADDER

In its 2021 LTERP, FBC proposed a Clean Market Adder (as defined above, CMA) 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.⁶ A description of the CMA and its underlying assumptions and rationale is contained in the LTERP filed with the BCUC.⁷ At the date of filing this Application, FBC has not received a decision from the BCUC regarding the LTERP. 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. If the CMA is accepted as part of the LTERP process, but not incorporated in the LCIR, then FBC could not cover any premium to buy clean power.

3.2.2 Bill Calculation Example

Billing examples for an LCIR customer that takes its entire service as interruptible, as well as under the scenario when only a portion of the customer's load is interruptible, are included in Appendix B to this Application.

3.2.3 Reasons for Interruption

The tariff sheets for the LCIR contain a number of specific reasons for service suspensions. This does not preclude interruptions that may occur pursuant to the Terms and Conditions contained in the FortisBC Electric Tariff, particularly Section 10 – Continuity of Service.

Per the LCIR tariff sheets, service may be interrupted for any of the following reasons:

a. To maintain service to Customers taking service under one of FBC's firm rate schedules

FBC's firm rate schedules are any other rate schedule contained in the FBC Electric Tariff through which a customer receives service. Maintaining service to firm service customers will take priority over maintaining service to LCIR customers. For example, where thermal loading of a feeder may be exceeded due to high ambient temperatures, service to an interruptible customer may be suspended to reduce feeder loading such that local service can be maintained.

b. To avoid any 3rd Party charges that may be levied against FBC related to Imbalance Energy or Imbalance Wheeling

Imbalance Energy is the flow of power from the BC Hydro system to the FBC system that is inadvertent (in other words, instances when FBC effectively had insufficient supply to

⁶ IHS is a third-party market subscription service used by FortisBC Energy Inc. (FEI) and FBC. IHS provides market analysis and data as part of the subscription service. In particular, on a semi-annual basis, IHS produces a long-term market outlook that includes thirty-year market gas and power price forecasts.

⁷ <https://www.fortisbc.com/about-us/corporate-information/regulatory-affairs/our-electricity-utility/electric-bcuc-submissions/resource-plans-for-electricity/2021-long-term-electric-resource-plan-and-long-term-demand-side-management-plan>

meet its load). Under the Imbalance Agreement with BC Hydro, FBC can face significant charges related to imbalance per hour.⁸

c. To maintain the stability, reliability, or integrity of the FBC or Western Interconnected electrical systems

Examples in this category include: an outage to a system element (transmission line, transformer etc.) forcing FBC to supply from an alternate source, a reduction in available system capacity due to unexpected system loading conditions or equipment failure, or the declaration of a provincial energy emergency, which could allow the Reliability Coordinator to direct FBC to shed a prescribed amount of load.

d. Lack of available transmission

If there is insufficient transmission available to move market purchased power from the generator to the load, then power cannot flow and the schedule to FBC will be cut. Indeed, FBC may not have even been able to purchase power. This will likely require FBC to then discontinue service to interruptible customers for a period of time. In addition, the transmission shortfall could be within the FBC system such as an unexpected inability to move power from the Kootenays to other areas. This could require service to interruptible customers outside of the Kootenay region to be cut.

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.

3.3 ECONOMIC JUSTIFICATION AND RATEPAYER IMPACTS

The economic justification for the LCIR relies on the ability of FBC to increase overall revenue by adding either additional load from new customers, or non-firm load from existing customers. Consideration must also be given to the associated costs, particularly the cost of power supply.

⁸ See the British Columbia Hydro and Power Authority (BC Hydro) BC Hydro Application for Approval of New Power Purchase Agreement (PPA) with FortisBC Inc. Section 4.2.
https://docs.bccub.com/Documents/Proceedings/2013/DOC_34789_B-1_BCH-Approval-Power-Purchase-Agreement-Application.pdf

1 The justification for the offering of the LCIR to a customer that is entirely new to FBC service is
2 straightforward. Such a customer will connect to a location where service is available on a non-
3 firm basis. The customer served on the LCIR will only be served when it funds any interconnection
4 costs, and when the energy charges under the rate exceed FBC's incremental power supply
5 costs. In this case, FBC will recover its marginal cost to serve, and will receive an additional
6 contribution towards the fixed costs of the system – thus providing a benefit to all FBC ratepayers.

7 In the case of an existing FBC customer that chooses to switch to service under the LCIR, there
8 are a number of possible outcomes. The following examples illustrate how offering the LCIR can
9 be leveraged into a rate benefit for all FBC customers.

10 The first scenario is an existing RS 31 customer with a flat load of 20 MVA at unity power factor.
11 Under RS 31, the monthly Energy Charge and Demand bill for the customer would be
12 approximately \$1,018,000.⁹ Using an average all-hour Mid-C price for March 2022 (\$42.09/MWh
13 CDN) the monthly bill under the LCIR, including all adders without the Customer Charge, would
14 be approximately \$797,000, assuming that the customer was not interrupted. This represents a
15 saving to the LCIR customer of \$221,000.

16 In order for FBC to recover the revenue difference, an additional RS 31 customer of only 4.3 MVA
17 would need to be added. FBC could, however, add additional firm load up to the 20 MVA that the
18 RS 31 customer had previously contracted for.

19 An alternate scenario may result when an existing customer with a 10 MVA load has a desire to
20 expand, but the FBC system cannot accommodate the request on a firm basis under current
21 planning criteria. FBC would evaluate the ability of the system to add load on a non-firm
22 interruptible basis. If, for example, the customer chose to either convert its entire load, or add
23 only the additional 10 MVA as non-firm, a benefit would likely accrue to FBC customers in the first
24 scenario and would certainly accrue in the second.

25 If, however, FBC is unable to attract firm load to consume the newly available capacity, the LCIR
26 savings that result for the customer would be borne by other customers as discussed in Section
27 4 of this Application.

⁹ Assuming a month with 744 hours.

4. DISCUSSION

4.1 DISCUSSION OF RISK

From a customer perspective, the rationale for participating in an interruptible rate offering involves assessing the trade-off between reduced electricity rates and/or the opportunity to connect or increase load against the prospect of interruptions in the continuity of supply. Each customer must make this assessment while determining if interruptible service is appropriate for its circumstance. During public engagement in relation to the LCIR, participants expressed a need for FBC to provide historical feeder performance, and that communication regarding the Mid-C pricing be made available. FBC has agreed to provide feeder data to prospective participants with the understanding that this historical data may not represent future performance. Additionally, FBC has confirmed that FBC customers participating in the LCIR can receive information directly from the Intercontinental Exchange (as defined above, ICE) on an ongoing basis. The customer is solely responsible for the risk assessment and the resulting decision regarding participation in the chosen rate.

As discussed in Section 2 of the Application, the rationale for the LCIR includes the opportunity to allow eligible customers to connect to the FBC system where capacity would otherwise not be available under existing system planning criteria. This would increase the overall system load factor, providing general rate mitigation.

Given that the LCIR is focussed primarily on allowing load to connect in instances where it would not otherwise be possible, and the LCIR customer is responsible for all related costs, other customers are better off.

From the perspective of FBC (and by extension, non-participating customers), the primary risk associated with the LCIR stems from the uncertainty of attracting new load to the system when an **existing** Large Commercial customer leaves an existing rate for all or some of its load in favour of interruptible service, thereby making additional system capacity available. In the case where additional load does not result, FBC would be exposed to a drop in revenue that may not be offset by no longer having to plan for the firm load for the customer. Any shortfall would be borne by other customers.

However, the attraction of additional customers is not the only means by which additional revenue can result from the LCIR. There may be instances where the FBC system limits the amount of firm load that can be offered to a customer. On a non-firm basis, that same customer may be able to increase its load to the point where LCIR revenues match or exceed the revenues that resulted from the firm rate.

In addition, there is also a load retention aspect to offering the LCIR at this time. That is, without some means of remaining competitive with the rates found in other jurisdictions, FBC is at risk of losing some load that is able to relocate. For example, when compared to traditional resource-based load, some emerging technology-based loads (e.g., data centres) are more mobile.

1 The above-described risk (i.e., when an existing Large Commercial customer leaves an existing
2 rate for all or some of its load in favour of interruptible service) is not a factor when the LCIR
3 customer is new load on the FBC system.

4 FBC has mitigated against the risk associated with existing firm load becoming interruptible in two
5 ways. First, by including a price cap, FBC has mitigated against the risk associated with extremely
6 high market prices, and second, an initial 50 MVA cap on participation will serve to manage the
7 program to a level where FBC is confident that additional load can be interconnected.

8 While it is not certain that additional load will avail itself of the additional capacity that results, FBC
9 is proposing the LCIR as a direct result of expressions of interest from prospective customers that
10 cannot be met under the current planning criteria as reflected in current rate structures. The
11 Application acknowledges that there is a type of customer emerging that is willing to accept
12 reduced reliability as a trade-off for reduced cost. These customers may not be well served by
13 traditional rate making which assumes that all customers require reliable service as a given.

14 **4.2 IMPLEMENTATION CONSIDERATIONS**

15 FBC proposes to implement RS 38 on a permanent basis as soon as practicable after BCUC
16 approval (which FBC has determined to be 30 days), which is assumed to occur in the fourth
17 quarter of 2022. FBC also proposes to limit initial uptake in the program to a total of 50 MW of
18 connected interruptible load. At the point where FBC has gained sufficient experience
19 administering the program, it will consider the amount of additional load, if any, that may be added
20 to the program in subsequent years.

21 FBC believes it is appropriate to offer interruptible service on a permanent rather than on a pilot
22 basis since participating customers may have to make a significant capital investment in order to
23 install the facilities required to meet the rate requirements. It would be unfair and would likely
24 undermine the success of the service if customers could not be sure that the rate schedule will
25 persist.

26 In assessing whether to expand interruptible service beyond the initial 50 MVA offering, FBC will
27 consider such factors as program uptake, success in attracting new load, the impact of
28 interruptions, participant customer satisfaction, and impact on non-participating customers.

29 FBC proposes to provide to the BCUC, on an annual basis, a summary of any LCIR-related
30 activity.

31 The summary would include information such as:

- 32 • Applications for RS 38 service that are under review;
- 33 • kWh sales and revenue provided under the LCIR;
- 34 • A comparison of revenues under the LCIR to foregone revenue under RS 31 and RS 30;

- Average revenues from LCIR billing;
- An analysis of Power Supply alternatives used to supply interruptible customers; and
- Information on the reason for, frequency and duration of interruptions for LCIR customers.

As part of the review, FBC will provide a recommendation regarding the options to expand or maintain interruptible service beyond the initial 50 MVA offering.

4.2.1 Eligibility

FBC proposes that interruptible service be available to new or existing customers that are or would otherwise be served under either:

- Large Commercial Primary – Rate Schedule 30 (RS 30); or
- Large Commercial Transmission – Rate Schedule 31 (RS 31).

Under the current approved FBC tariff, the minimum connected load for a Large Commercial – Primary customer is 500 kVA. The minimum connected load for a Large Commercial – Transmission customer is 5,000 kVA.

In order for interruptible service to provide a meaningful benefit to FBC in managing system contingencies, the load that is available to be interrupted at a single location needs to be sufficiently large. FBC has not defined a particular load size that would provide such a benefit; however, as a practical matter, the only rate schedules that are at all likely to fulfil this requirement are those available to Large Commercial customers.

As of May 31, 2022, FBC has 36 and 31 customers in its RS 30 and RS 31 rate schedules, respectively.

FBC has no firm¹⁰ 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.

4.3 BONBRIGHT PRINCIPLES ASSESSMENT

The fundamental principles that continue to guide FBC's rate design activities are generally based on those identified by Dr. James Cummings Bonbright and are paraphrased below for convenience. The BCUC has found Bonbright's eight rate design criteria to be consistent with

¹⁰ Not in the sense of "firm" or "non-firm" service.

the *Utilities Commission Act* test that rates must be fair, just and not unduly discriminatory, and to form an appropriate foundation for rate structures.¹¹ In summary, the criteria are as follows:

- Principle 1 Recovery of the revenue requirement;
- Principle 2 Fair apportionment of costs among customers (appropriate cost recovery should be reflected in rates);
- Principle 3 Price signals that encourage efficient use and discourage inefficient use (consideration of social issues including environmental and energy policy);
- Principle 4 Customer understanding and acceptance;
- Principle 5 Practical and cost-effective to implement (sustainable and meet long-term objectives);
- Principle 6 Rate stability (customer rate impact should be managed);
- Principle 7 Revenue stability; and
- Principle 8 Avoidance of undue discrimination (interclass equity must be enhanced and maintained).

The Bonbright objectives provide a framework against which all rate design activities and options can be compared.

In Table 5-1 below, FBC comments on the proposed interruptible service with respect to the Bonbright objectives listed above.

Table 5-1: Bonbright Principles Assessment

Criterion	Assessment ¹²	Comment
Recovery of the revenue requirement	Good	Interruptible service adds a potential revenue stream at minimal cost, utilizing existing assets while adding additional load.
Fair apportionment of costs among customers	Good	Incremental costs are minimal, while a benefit is delivered to non-participating customers.
Price signals that encourage efficient use and discourage inefficient use	Good	LCIR customers will receive direct price signals to which they can respond by controlling load. LCIR customers will not have access to embedded cost power when the cost of available supply exceeds rates.

¹¹ In the Matter of BC Hydro and Power Authority: Residential Inclining Block Rate Application Reasons for Decision to Order No. G-124-08, dated September 24, 2008, page 51.

¹² This column represents a qualitative assessment of how the LCIR aligns to each Bonbright criterion.

Criterion	Assessment ¹²	Comment
Customer understanding and acceptance	Good	Interruptible service is relatively simple in form and has been designed with input from potential customers in the case of the LCIR.
Practical and cost-effective to implement	Fair	From an FBC perspective, there is minimal ongoing cost to administer the rates. Customers may face additional up-front infrastructure costs.
Rate stability	Fair	For the LCIR, the structure is set; however, the energy price is subject to fluctuation.
Revenue stability	Good	The rate is proposed to be permanent and should provide a consistent stream of additional revenue.
Avoidance of undue discrimination	Good	The rate is available to all Large Commercial customers on the same basis throughout the service area. Non-participating customers are insulated from risk by the terms and conditions, such as the initial 50 MW cap on uptake, and existing security provisions.

- 1
- 2 The table above demonstrates that RS 38 is consistent with the accepted Bonbright attributes of
- 3 sound rate making.

5. CUSTOMER ENGAGEMENT

The LCIR has been developed in consultation with potential rate participants (those currently served under RS 30 and RS 31, as well as potential customers that FBC's Key Account Managers were aware of), and representatives of groups who often intervene in FBC proceedings. FBC held a number of virtual sessions in 2021 and 2022 to provide information on the LCIR proposal, and to gather input and suggestions that have informed the development of the LCIR proposal contained in this Application. The final form of RS 38 includes a number of additions and changes to the initial draft of the rate influenced by submissions from participants.

FBC hosted the following virtual sessions via the Microsoft Teams platform.

Table 6-1: LCIR Customer Engagement

Date	Session	Attendees
July 6, 2021	LCIR Engagement Session 1, Date 1	21
July 7, 2021	LCIR Engagement Session 1, Date 2	18
August 25, 2021	LCIR Engagement Session 2, Date 1	11
August 26, 2021	LCIR Engagement Session 2, Date 2	9
February 22, 2022	Final Rate Presentation Session 1	11
February 22, 2022	Final Rate Presentation Session 2	2

For each session, FBC provided presentation materials in advance. Questions and comments were recorded during each session, and a Q&A document was circulated shortly after the sessions were completed. In addition, where certain elements of the proposal appeared to require an expanded explanation, discussion was included in subsequent Additional Implementation Notes that were distributed to all session participants.

Feedback received from the first engagement session was considered and included in the update provided in the second session, and feedback received from the second engagement session was incorporated in the final draft form of the LCIR presented during the final rate presentations.

Due to the limited applicability of the LCIR (i.e., the rate is only available to Large Commercial customers), FBC did not host public sessions available to the general public. However, the participant list included representatives from intervenor groups such as the BC Sustainable Energy Association (BCSEA). BCUC staff also attended the first engagement session.

Participants in the sessions had a number of questions and concerns regarding the LCIR proposal. The subjects receiving the most discussion were: pricing, in particular with regard to the availability of some kind of cap that would limit exposure to market prices; notification provisions; and the load factor requirement.

With regard to a price cap, over the course of consultation and development of the LCIR, FBC added a price cap to the Energy Charge portion of the rate as described in Section 3.2.1.2 of the

1 Application. For notification, a statement regarding the intent on the part of FBC to provide
2 advance notice of interruption where practicable was added after the first session; however, it
3 remains that case that notice cannot be provided in all circumstances.

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

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

16 Copies of the Engagement Session slides, Q&A documents, and Additional Implementation Notes
17 are attached to this Application as Appendix C.

6. CONCLUSION

The proposed interruptible rate offering is a prudent expansion of FBC's electric service offerings to the Large Commercial customer class. This option would be available to all eligible RS 30 and RS 31 customers and would allow customers to connect new or increased loads to areas of the FBC system where there would not otherwise be capacity to do so, or, for customers particularly sensitive to pricing, to provide an opportunity to take a market-based rate option. This provides additional opportunities for customers and increases the use of the existing system without the need for costly capital additions. As noted above, under the LCIR customers will have an opportunity to take service with reference to market rates and utilizing a proxy for Retail Access that, while approved for use in the FBC service area, is currently unavailable due to external factors. FBC considers that there is a higher likelihood of a net revenue gain and positive ratepayer benefit than of a net revenue loss as indicated in Section 4.1 of the Application.

In summary, FBC considers the LCIR rate design and associated terms and conditions will: (i) provide benefits to participant customers in the form of potential lower electricity costs for new or incremental use; (ii) provide benefits to all ratepayers by setting pricing that is sufficient to cover any additional power purchases required to service the non-firm load; (iii) make a contribution to fixed costs; and (iv) mitigate against risk to other customers by requiring service to be non-firm and interruptible under a predefined set of conditions. Energy pricing will be based on the Mid-C market price plus appropriate adders and will incorporate a cap on the Mid-C price above which FBC will not be obligated to supply power. The use of a CMA ensures that the LCIR is consistent with FBC's LTERP, assuming that this facet of the LTERP is accepted.

For all of these reasons, FBC believes that its interruptible service option proposal is in the public interest and should be approved.

Appendix A

DRAFT INTERRUPTIBLE RATE SCHEDULE 38

RATE SCHEDULE 38 – INTERRUPTIBLE SERVICE

NATURE OF SERVICE:

Interruptible Service is a non-firm, large commercial rate where customers are subject to service suspensions as described in this Rate Schedule. A Customer taking service under this Rate Schedule is referred to as an Interruptible Customer.

AVAILABILITY:

Interruptible Service is available throughout FortisBC's electric service area to Customers whose entire load at one point of interconnection would normally be eligible for service on Rate Schedule 30 – Large Commercial Service – Primary, or Rate Schedule 31 – Large Commercial Service – Transmission, subject to:

- a. a review by FortisBC of each customer request for suitability and technical viability;
- b. written agreement; and
- c. in cases where the Interruptible Customer chooses to have only a portion of its total load served under this Rate Schedule, the portion of the customer's load that is to be served under this Rate Schedule is sufficient in size to itself qualify for service on either Rate Schedule 30 – Large Commercial Service – Primary, or Rate Schedule 31 – Large Commercial Service – Transmission.

CHARGES:

Each Billing Period, the Customer will be billed the total of the Customer Charge and Energy Charge calculated as described below.

Monthly Rate:

For Customers otherwise eligible for Rate Schedule 30: \$1030.68 per Month

For Customers otherwise eligible for Rate Schedule 31: \$3,366.02 per Month

In cases where the Interruptible Customer chooses to have only a portion of its total load served under this Rate Schedule, and is therefore paying the above charges pursuant to the billing associated with the firm portion of its load, the Customer Charge billed under this Rate Schedule will be zero (\$0.00).

Rate Schedule 38 Energy Charge:

Interruptible Customers taking service on this rate will be billed an Energy Charge in each Billing Period equal to the sum of Hourly Energy Charges determined as follows:

Order No.:

Issued By: Diane Roy, Vice President, Regulatory Affairs

Effective Date:

Accepted for Filing: _____

BCUC Secretary: _____

Original Page R-38.1

RATE SCHEDULE 38 – INTERRUPTIBLE SERVICE (Cont'd)

Rate Schedule 38 Energy Charge (Cont'd):

- (i) For a Peak Hour, the Intercontinental Exchange (ICE) Day Ahead Mid-Columbia Peak Index for the applicable day of flow in \$/MWh; and For an Off-Peak Hour, the Day Ahead Mid-Columbia Off-Peak Index for the applicable day of flow in \$/MWh (in either such case, the “applicable Mid-C Price”). In Hours in which the applicable Mid-C Price is negative, a value of \$0.00/MWh will be used. 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; and
- (ii) System losses as per Rate Schedule 109;
- (iii) Hourly Service Adder of \$0.01000 per kWh; and
- (iv) Clean Market Adder (CMA)*

The Hourly Energy charge is calculated as:

$(\text{Energy Taken (kW.h)} \times (1 + \text{loss rate \%})) \times (\text{applicable Mid-C Price} + 0.0100 + \text{CMA})$

- * The CMA is currently \$0.00 per kW.h and will be adjusted based on applicable BCUC determinations.

REASONS FOR INTERRUPTION:

The Suspension of Service for any of the following reasons is an Interruption for the purpose of this Rate Schedule:

- a: To maintain service to Customers taking service under any of FortisBC’s other rate schedules that is not designated as non-firm; or
- b: To avoid any 3rd Party charges that may be levied against FortisBC related to Imbalance Energy; or
- c: To maintain the stability, reliability, or integrity of the FortisBC or Western Interconnected electrical systems; or
- d: Lack of available transmission; or
- e: For Hours where FortisBC reasonably expects that the Energy Charge will be based on the Mid-C Price Capas described in part i) of the Energy Charge portion of this rate schedule, FortisBC may interrupt the Customer.

Order No.:

Issued By: Diane Roy, Vice President, Regulatory Affairs

Effective Date:

Accepted for Filing: _____

BCUC Secretary: _____

Original Page R-38.2

RATE SCHEDULE 38 – INTERRUPTIBLE SERVICE (Cont'd)

NOTICE OF INTERRUPTION:

FortisBC does not guaranty that prior notice of a pending or potential Interruption will be provided in any or all cases. However, FortisBC will endeavor to provide notice, where practicable.

SPECIAL PROVISIONS:

1. Service under this Schedule is available for a minimum of 12 Months after commencement of Service.
2. The applicable Mid-C Price will be converted to \$CDN using the daily Bank of Canada rate and settled on a monthly basis.
3. By January 31 of each year, the Interruptible Customer will provide to FortisBC an hourly anticipated load forecast for the premise being served under this Rate Schedule for the following five years. Anticipated changes to this load forecast are to be communicated by the Interruptible Customer to FortisBC with as much notice as reasonably possible.
4. The Interruptible Customer is required to maintain a Load Factor of 80% in order to receive service under this Rate Schedule unless otherwise agreed to by FortisBC.
5. Energy provided under this Rate Schedule is non-firm and subject to interruptions that may be initiated through automatic means, or any other method when required at the sole discretion of FortisBC, for any of the reasons noted in the Reasons for Interruption or as set out in paragraph 11 below.
6. Existing Customers that move any portion of their existing load to this Rate Schedule will be deemed to have terminated service under the Customer's current Rate Schedule for that portion. Where a Customer requires firm service for a portion of its load, adequate separation of firm service and service taken under this Rate Schedule must be established to facilitate both approved revenue metering and interruption as provided under this rate. A separate point of delivery for the firm service portion may be required at the sole discretion of FortisBC.
7. In cases where the Interruptible Customer chooses to have only a portion of its total load served under this Rate Schedule, the portion of the Customer's load that is not served under this Rate Schedule will be billed pursuant to the rate schedule that would otherwise be applicable to the Customer's total load, regardless of the magnitude of the load that is not served under this rate schedule.

Order No.:

Issued By: Diane Roy, Vice President, Regulatory Affairs

Effective Date:

Accepted for Filing: _____

BCUC Secretary: _____

Original Page R-38.3

RATE SCHEDULE 38 – INTERRUPTIBLE SERVICE (cont'd)

SPECIAL PROVISIONS (Cont'd):

8. The Interruptible Customer may request to transition or return to firm service under either Rate Schedule 30 or 31 by making an application through the existing FortisBC Industrial Electricity Interconnection process. Making such an application does not guaranty that firm service in the amount requested will be available at the desired location.
9. To receive and continue service under this Rate Schedule, the Interruptible Customer will install all necessary communication, relay and breaker equipment as may be required on an ongoing basis, subject to FortisBC approval, and will pay for all associated hardware costs. The Customer must maintain all FortisBC-approved equipment at the Customer's location necessary for FortisBC to remotely interrupt the Customer.
10. FortisBC shall not be liable for any loss or damage caused by or resulting from any Interruption of service or the non-provision of notice of any pending or potential Interruption.
11. Nothing herein prevents FortisBC from interrupting service for emergency circumstances, determined at FortisBC's sole discretion.
12. 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.
13. FortisBC will determine upon Customer Application the amount of interruptible load, if any, that can be connected at the requested location.
14. Interruptible Customers may meet the conditions to become a Registered Entity under the Rules of Procedure for Reliability Standards in British Columbia and, if so would be required to be compliant with applicable Mandatory Reliability Standards. All compliance activities are the sole responsibility of the Interruptible Customer.
15. Where FortisBC has made a contribution toward the costs of any Extension or System Upgrade required to provide service to an Existing Customer, and that Customer requests to transition to Interruptible Service, and the total billing revenue collected from the Customer to the time that service is initiated under this Rate Schedule is insufficient to cover that FortisBC contribution, the Customer will be required to repay the FortisBC contribution as follows:
 - a. Repayment Amount = Amount of FortisBC contribution – (total revenue received from the Customer + any contribution amount that has been received from any additional Customer(s) connecting to the Extension).

Order No.:

Issued By: Diane Roy, Vice President, Regulatory Affairs

Effective Date:

Accepted for Filing: _____

BCUC Secretary: _____

Original Page R-38.4

Appendix B

LCIR BILL EXAMPLES

**ELECTRICITY**

Customer Service
Telephone: 1-866-436-7847
7 am - 7 pm Mon - Fri
fortisbc.com

Account Name: LCIR CUSTOMER
Billing Date: JUL-01-2022
Billing Period: JUN-01-2022 to JUN-30-2022

Previous statement 1,265,789.23
Payment received l Thank you 1,265,789.23 CR
Balance outstanding 0.00

Current Electric Charges

12345 ANY STREET (Meter 123456)

Large Commercial Interruptible Service
Rate Period 06/01/22—06/30/22 30 days
Customer Charge 3,366.02
Energy Used: 12,369,969 kWh 1,325,174.67
1,326,540.69

Taxes

GST (5% on 1,326,540.69) 66,427.03
66,427.03

Total New Charges 1,394,967.73**Amount Due** \$1,394,967.73**Account Number**

111111111-4

Due Date

JUL-31-2022

Amount Due**Meter Reading Information****Meter Number: 123456**

Jun 1 2022 12362870

Jun 30 2022 24756839

30 Days 12393969 kWh

Average current kWh/Day 413132

Average previous year kWh/Day 422568

Next re**Go paperless with eBill service!**

It's a fast, easy and environmentally-friendly way
to receive your electricity bill. Visit fortisbc.com
or call 1-866-436-7847 to sign up.

ELECTRICITY**Payment return slip**

Payable at most financial institutions

Please write your account number on your cheque or money order payable to FortisBC - Electricity.

**Account Number**

111111111-4

Due Date

July 31, 2022

Amount Due

1,394,967.73

Amount Paid

9010031939 2 0000269074

**ELECTRICITY**

Customer Service
Telephone: 1-866-436-7847
7 am - 7 pm Mon - Fri
fortisbc.com

Account Name: LCIR CUSTOMER
Billing Date: JUL-01-2022
Billing Period: JUN-01-2022 to JUN-30-2022

Previous statement	1,265,789.23	
Payment received	<u>1,265,789.23 CR</u>	
Balance outstanding		0.00

Current Electric Charges

12345 ANY STREET

(Meter 123456)
(Meter 678910)

Large Commercial Interruptible Service
Rate Period 06/01/22—06/30/22 30 days
Energy Used: 12,369,969 kWh

1,325,174.67
1,326,540.69

Large Commercial Service - Transmission Rate
Rate Period 06/01/22 - 06/30/22 30 days
Basic Customer Charge 3.366.02
Energy Used: 347,520 kWh @ \$0.05655/kWh 19,652.26
Wires Charge: 1,472 kVA @ \$5.19/kVA 7,639.68
Power Supply Charge of: 1,472 kVA @ \$3.63/kVA 5,343.36
36,001.32

Taxes
GST (5% on 1,362,542.01) 68,127.10
68,127.10

Total New Charges **1,430,669.11**

Amount Due **1,430,669.11**

Account Number
111111111-4
Due Date
July 31, 2022
Amount Due

Meter Reading Information**Meter Number: 123456**

Jun 1 2022	12362870
Jun 30 2022	24756839

Meter Number: 678910

Jun 05 2022	01.227
Multiplier	X 1200
	1472 kVA

Jun 1 2022	14321.5
Jun 30 2022	14031.9
Multiplier X	1200

30 days **347520 kWh**

Go paperless with eBill service!

It's a fast, easy and environmentally-friendly way to receive your electricity bill. Visit fortisbc.com or call 1-866-436-7847 to sign up.

ELECTRICITY

Payment return slip
Payable at most financial institutions
Please write your account number on your cheque or money order payable to FortisBC - Electricity.

Account Number
111111111-4
Due Date
July 31, 2022
Amount Due
1,430,699.11
Amount Paid

9010031939 2 0000269074

Appendix C

CONSULTATION MATERIALS

Large Commercial Interruptible Rate (LCIR)

Engagement Session #1

July 2021



Housekeeping

- Presenters will turn their cameras on – optional for others
- Please mute yourself when you're not speaking
- If you have a question, please speak up or raise hand



- We will be taking notes and distributing them later – we will not identify individuals or organizations
- Feel free to provide feedback after the meeting

Agenda

1. Introduction & Engagement Plan
2. What is an Interruptible Rate?
3. Why Implement an Interruptible Rate?
4. Attributes of the FBC Proposed LCIR
5. Next Steps
6. Questions / Discussion

Introduction

1. Introduction

2. Engagement Plan

- Directly with impacted customers and intervener groups.
- Initial engagement Session (this one)
- Second session to present updated draft rate schedule and documents. (Late August)
- Incorporate feedback into BCUC Application

What is an Interruptible Rate?

Interruptible Rate:

A special electricity arrangement under which, in return for lower electricity charges, the customer must allow FortisBC to temporarily cut off the energy supply in order to maintain system integrity and energy flow for firm-service customers.



Why Implement an Interruptible Rate?

The FBC LCIR serves a specific purpose:

- Allows customers to connect where capacity would otherwise not be available under existing system planning criteria;
- Certain customers may be able to realize cost savings and/or bridge to regular rates over time.
- Increases the system load factor (rate mitigation);
- Prohibition on Retail Access

Attributes of the LCIR

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.

This requires a minimum connected load of 500 kVA.

Interconnection Process:

For simplicity and tracking, Customer Applications will be processed using the existing Commercial Interconnection processes.

<https://www.fortisbc.com/services/commercial-industrial-services/industrial-electricity-interconnection>

Industrial electricity services

Request interconnection with our electricity system in the Southern Interior region of BC, and learn about interconnection requirements and specifications.

Industrial electricity interconnection

Greater than 5000 kW for dx and all tx customers

Total connected load form

All dx less than 5000 kW

Pole contact notification/application

Reasons For Interruption

1. To maintain service to customers taking service under one of the Company's firm rate schedules; or
2. To avoid any charges that may be levied against the Company related to power supply Imbalance ;or
3. To maintain the stability, reliability, and integrity of the FortisBC and Western Interconnected electrical systems.

Proposed Rate Structure:

A Market-Based Rate with no Demand Charges

- Similar to the structure of RS 37 (Stand-by Service)
 - Energy rate based on Intercontinental Exchange (ICE) Day Ahead Mid-C Index;
 - Plus: Losses per RS 109;
 - Plus: Transmission Adder of \$0.0100 per kWh.

The Hourly Energy charge is calculated as:

$(\text{Energy Taken (kWh)} \times (1 + \text{loss rate \%})) \times (\text{Mid-C} + 0.0100)]^*$

*calculation done on an after-the-fact basis.

Existing Rate (RS 31) Example:

<u>MONTHLY RATE:</u>	<u>A Wires Charge of:</u> \$5.02 per kVA of Billing Demand; plus: <u>A Power Supply Charge of:</u> \$3.51 per kVA of maximum Demand in current billing Month; plus: <u>An Energy Charge of:</u> All kW.h @ 5.465¢ per kW.h
<u>CUSTOMER CHARGE:</u>	\$3,253.14 per Month

Monthly Usage:

Large Commercial – Transmission Service

11,000 kVA

7,500,000 kWh

Existing Rate (RS 31) Example cont'd :

Rate Schedule 31

$$\$3,253 + (11,000 \text{ kVA} * (\$5.02 + \$3.51)) + 7,500,000 \text{ kWh} \times \$0.05465 =$$

$$\$3,253 + \$93,830 + \$409.875 = \mathbf{\$506,958}$$

Proposed Rate Structure Example:

Assumptions:

Monthly Usage:

Large Commercial – Transmission Service

Peak Demand during billing period: 11,500 kVA

Monthly Sum of hourly consumption of 7,500,000 kWh

Average Mid-C price: \$40 / MWh (\$CDN)*

Calculation:

$$(7,500,000 \text{ kWh} \times 1.02860 \times (.04 + 0.0100)) + \$3,253 = \textbf{\$388.978}$$

This is a simplification as the actual billed amount would be the sum of the hourly billing over the course of the billing period.

*Mid-C forecast for 2022 ranges from \$17.48-\$42.04 (\$33/58 average) (2020\$)

Rate Comparison: RS 31 vs LCIR

	RS 31	LCIR
Customer Charge	\$3,253	\$3,253
Demand Charges	\$93,830	-
Energy Charges	\$409,875	\$385,725
Total	\$506,958	\$388,978

Special Conditions:

The LCIR is subject to a number of special conditions including but not limited to:

Eligibility:

- Available to RS 30 and RS 31 customers
- Must remain on rate for 12 consecutive months;
- Must maintain a load factor of 80%*;
- Must provide FBC with a timely and accurate load forecast

*Load factor is defined as the ratio of the average load over a given period of time to the maximum demand (peak load) occurring in that period.

Special Conditions cont'd:

Technical:

- Equipment required for remote disconnection must be installed at customer cost;

Transition:

- Customers may split load utilizing separate services;
- No automatic right to return to firm service
- Application is through the existing Industrial Electricity Interconnection process;

Program Scope

FortisBC is proposing to limit enrollment in the initial year, with additional enrollment to be offered upon review of the program or individual circumstances.

- Effective January 1, 2022 – 50 MW;

Big Questions:

- How often will I be interrupted?
- How long will each interruption last?
- How much notice will I get prior to interruptions?
- What if the Mid-C price gets very high?
- Is this a pilot or permanent rate?

Consultation & Feedback:

Submit Feedback for this session by Friday, July 23 to:

electricity.regulatory.affairs@fortisbc.com

Next Steps:

- Follow-up webinar August 16/17
- BCUC Application: Q4 2021



**For further information,
please contact:**

Corey Sinclair



Find FortisBC at:

Fortisbc.com



604-576-7000

Large Commercial Interruptible Rate (LCIR) Consultation Q&A

Consultation Sessions: July 6 & 7, 2021

	Consultation Session Question	FortisBC Response
1	Could interruptions be phased in rather than simply on/off?	Further consideration
2	Could Interruptible Supply be purchased by FBC to supply interruptible customers?	Industry standard reliability rules allow it. However, that is not FBC's intent at this time.
3	What interval of time is imbalance with BCH calculated?	Hourly
4	How is imbalance created?	Imbalance is created by either lack of supply or too much supply that cannot be reduced.
5	Could the LCIR charges be capped at the RS31 level?	Further consideration
6	Could customers nominate a market price above which they would be curtailed?	Further consideration
7	What are some examples of a system integrity issue that would cause interruption?	<p>Some examples include:</p> <ul style="list-style-type: none"> - Loss of a system element (transmission line, transformer etc) forcing the utility to supply from an alternate source. - Reduction in available system capacity due to unexpected system loading conditions or equipment failure. - Declaration of a provincial energy emergency, which could allow the Reliability Coordinator to direct FortisBC to shed a prescribed amount of load.
8	Would joint operating orders need to be revised to cover start up after an interruption?	Existing customers that transition their current loads to an interruptible rate would have the same conditions on start-up that they do currently. Requirements for joint operating orders for new customers and loads will be evaluated as they come online.
9	Could the 80% LF requirement be changed? (it precludes heating loads)	Further consideration
10	Is there a type of load that FBC is looking to avoid having on the LCIR? (Heating load seems incompatible with the rate)	FBC has not specified a particular type of load (in terms of end-use) that it is looking to attract or avoid. FBC is endeavoring to attract loads large enough to have a system impact though interruption and that have a relatively flat, stable load. FBC understands that the LCIR may only be attractive to a limited number of customers whose business processes are able to accommodate periodic interruption in supply.

11	Is the RS109 loss rate appropriate or should the loss calculation be more situation specific?	RS 109 represents an accepted system average number for losses that is used for rate setting purposes. The advantage of RS 109 for the LCIR is that it is updated periodically and does not require a location specific assessment of the loss rate for each customer.
12	Is the higher cost of green power included in the rate?	No, it is not. FBC expects that if the Commission approves FBC's Long Term Electric Resource Plan submission to purchase clean or green that an additional adder would be required to cover those increased costs of obtaining power.
13	Is the power purchased by FBC going to be clean or renewable?	No, not at this time but this could change.
14	Could the power nominated under the LCIR be take or pay?	Further consideration
15	Will FBC hedge against high power prices?	No, this is the customer's responsibility. However, it is under further consideration if the program should be structured such that FBC will not plan to acquire power above a certain price.
16	Several questions on the capacity in a given area being eaten up by new loads such that the LCIR customer could not return to firm service.	FBC confirms that since available capacity at any point on the system may be constrained and subject to change with the local customer mix, there is a risk to an LCIR customer that a return to firm service may be limited. Potential LCIR customers are advised to consider all risk prior to committing to a change in service
17	How would the 50 MW cap be allocated to customers? Would FBC prefer to have a single 50 MW customer or several smaller loads?	At the current time, FBC is not proposing to limit the LCIR to any particular number of customers. If a single customer utilizes the entire initial LCIR allotment, FBC would determine whether change to that allotment should be made.
18	What parts of the FBC system are seeing the most queries on capacity availability?	FBC has fielded expressions of interest for the connection of large commercial load across the entire service area.
19	Could a third party buy up firm transmission on the FBC system?	No, FBC reserves transmission capacity to serve native load and could accept reservations of transmission capacity for the purpose of third party wheeling. However, at the current time, point-to-point service can only be made available where the path is entirely within the FBC service area.
20	Will interruptions be automated on a RAS scheme?	Interruptions could be automatic and/or manual. The interruption criteria and design will be evaluated for each individual customer connection.
21	Where did the \$40/MWh number for mid-c come from in the example?	The example Mid-C value used in the LCIR presentation was drawn from the forecast

		contained in draft Long Term Electric Resource Plan materials. FBC considers it to be a reasonable value for the purpose of the example provided.
22	Can notice be provided utilizing a system or software solution?	Advanced notice of interruptions cannot be provided for connections that are automatically disconnected for system contingencies, since this will occur instantaneously. Advanced notice for manual interruptions would normally be provided by phone or e-mail with as much lead time as is available, but an early warning or alarm system design is theoretically possible. The advanced notice criteria and design will be evaluated for each individual customer connection.
23	Will customers be compensated for periods of interruption?	FBC has structured the LCIR to provide a discount as compared to standard tariff rates for all power consumed. Therefore, additional compensation for periods of interruption is not part of the rate proposal.
24	Can co-gen facilities be installed by customers to deal with periods of interruption?	Yes, FBC has no ability to restrict what a customer installs within its own facility, subject to the restrictions related to interconnection of such facilities with the FBC system.
25	What is the currency of record for Mid-C pricing, and how is any conversion managed?	Mid-C prices are in USD. We would convert all customer charges for the applicable month to CAD on the customer invoice using the Bank of Canada Daily Exchange rate from the last business day of the month.
26	Where will the power come from to serve the interruptible load?	On an incremental basis, FBC expects the required power to be purchased in some manner—either from BC Hydro or the market. FBC does not envision acquiring new long term resources to meet this load
27	Are clean and renewable purchases part of the Mid-C pricing	No
28	How will Mid-C price be calculated (hourly?)	Yes. The exact process is under review.
29	Is the LCIR based on COSA	No, as a market-based rate the LCIR does not rely on the historical costs embedded in the COSA except for the elements of transmission service referenced in the LCIR rate.
30	Can FBC provide historical interruption data	Yes, but historical interruption data is not a guarantee of future system response. The historical interruption data will be evaluated for each individual customer connection.
31	Can customers bring back the power instantly	Large customer loads will be evaluated to determine the maximum allowable load increase

on startup. This is to ensure system voltage and frequency stability for all customers is maintained.

Large Commercial Interruptible Rate (LCIR)

Engagement Session #2

August 2021



Housekeeping

- Presenters will turn their cameras on – optional for others
- Please mute yourself when you're not speaking
- If you have a question, please speak up or raise hand



- We will be taking notes and distributing them later – we will not identify individuals or organizations
- Feel free to provide feedback after the meeting

Agenda

1. FBC Introductions
2. Interruptible Rate Recap
3. What we Heard
4. Changes Since the last Session
5. Next Steps
6. Questions / Discussion

Interruptible Rate Recap

Interruptible Rate:

A special electricity arrangement under which, in return for lower electricity charges, the customer must allow FortisBC to temporarily cut off the energy supply in order to maintain system integrity and energy flow for firm-service customers.

Why?

- Allows customers to connect where capacity would otherwise not be available under existing system planning criteria;
- Certain customers may be able to realize cost savings and/or bridge to regular rates over time.
- Increases the system load factor (rate mitigation);
- Prohibition on Retail Access

What We Heard

Based on Session #1 Discussion and Q&A:

The LCIR should ideally:

- Have a cap on energy charges;
- Provide some level of notification;
- Allow for some separation of firm load;
- Allow for a phased-in approach to curtailment of interruptible load.

Cap on Energy Charges

FBC Proposes that customers will be able to choose a maximum energy charge based on either:

1. Charges per the market price regardless of level;
 2. Charges based on a rate of \$75/MWh (default)
- Under Option 2 – Interruption may occur if the Mid-C price exceeds the price under the Rate Schedule.

Notification

The Company does not guaranty that prior notice of a pending or potential interruption will be provided in any or all cases.

However, the Company will endeavor to provide notice, where practicable.

Separation of Firm / Interruptible Load

Separation of Firm and Interruptible load may be done either through separate service, or through system design as approved by FBC.

Each installation will be considered separately and approved provided that FBC can initiate the curtailment of the interruptible portion of the customer load.

Existing Customers that move any portion of their existing load to this Rate Schedule will be deemed to have terminated service under either Rate Schedule 30 or 31 for that portion. Where a Customer requires firm service for a portion of its load, adequate separation of firm service and service taken under this Rate Schedule must be established to facilitate both approved revenue metering and curtailment as provided under this rate. A separate point of delivery for the firm service portion may be required at the sole discretion of FortisBC.

Separation of Firm / Interruptible Load

In cases where total customer load is separated into firm and interruptible portions, each portion will be billed under the rate schedule appropriate for the size of that portion.

Phased-In Curtailments

Similar to the separation of load into Firm and Interruptible portions, incremental load shedding may be accommodated if it can be done to the satisfaction of FBC.

FBC reserves the right to curtail all load that is normally billed on the Interruptible Rate as required.

Clean Market Adder

From the Long-Term Electric Resource Plan

The Mid-C market price forecast is based on current and expected supply in the Pacific Northwest, which includes coal and gas resources, and therefore a clean market adder is used to represent the cost of purchasing only clean market power.

If the BCUC approves the Clean Market Adder, it will be reflected in the LCIR

Clean Market Adder

Tariff language added to reflect the Clean Market Adder:

- (i) For a Peak Hour, the Intercontinental Exchange (ICE) Day Ahead Mid-C Peak Index for the applicable day of flow in \$/MWh; and For an Off-Peak Hour, the Day Ahead Mid-C Off-Peak Index for the applicable day of flow in \$/MWh. In Hours in which the Mid-C price is negative, a value of \$0.00 will be used; and
- (ii) System losses as per Rate Schedule 109; and
- (iii) Hourly transmission charge adder of \$0.01000 per kWh; and
- (iv) **Clean Power Adder (CPA)***

The Hourly Energy charge is calculated as: (Energy Taken (kWh) x (1+ loss rate %)) x (Mid-C + 0.0100+ **CPA**)

*** The CPA is currently \$0.00 per kWh and will be adjusted based on applicable BCUC determinations resulting from any FBC Long-Term Resource Planning process.**

Next Steps:

- Circulate Session Q&A
- Circulate Draft Tariff Schedule for comment
- Development of Supporting Documentation
- BCUC Application: Q4 2021



**For further information,
please contact:**

Corey Sinclair



Find FortisBC at:

Fortisbc.com



604-576-7000

Large Commercial Interruptible Rate (LCIR) Consultation Q&A

Consultation Session #2: August 25 & 26, 2021

	Consultation Session Question	FortisBC Response
1	Can a two-year history of Mid-C prices be provided to help customers assess the price risk?	Yes, FBC will provide the historical Mid-C pricing to participants.
2	Is it the case the transmission system reliability is the biggest issue related to the LCIR?	It is difficult to generalize around what would be the most frequent cause of outages since there is a locational aspect and different reason associated with transmission plant, distribution plant, and power supply.
3	Can customers get history on the reliability for their specific area?	Yes. Customers interested in the LCIR can be provided this information. It is important to note that this historical information is not necessarily indicative of potential future interruptions as load growth and system changes may occur.
4	Can FBC confirm that the transmission system is the most likely cause of interruptions?	See question #2.
5	Can you comment on the relative interruption frequency for firm and non-firm load?	Non-firm (interruptible) customers can expect to experience all of the interruptions that a firm load customer experiences, plus additional interruptions related to those allowable under the LCIR tariff.
6	Does FBC have a sense of the take-up for the proposed rate?	While FBC has had no firm customer commitments to take service under the LCIR should it be approved by the BCUC, it has received expressions of interest and a number of interconnection inquiries from customers that could take service under the rate. FBC is confident that it would enroll some customers in the program.
7	Does FBC offer hedging services?	No. FBC expects that customers interested in hedging would make their own arrangements
8	Is the Clean Power Adder (CPA) based on actual purchases or carbon credits?	The CPA is based on actual power purchases.
9	Can carbon credits be flowed through to customers?	At the current time, FBC is not contemplating this. Further discussion can be held to see if this could be an option.
10	With the cap structure, is it possible that customers on the LCIR could be paying different rates at the same time?	Yes. Under the current proposal, it is possible that prices could be capped for a customer choosing that option, while not capped for others.
11	Could a customer self-curtail?	Yes, however since the customer will have provided a purchase schedule to FBC, a revised

		purchase schedule will have to be communicated to FBC prior to the deadline for such revisions. The amount of notice FBC requires varies depending on the scheduling calendar in the wholesale power markets but is typically between 2 and 5 days in advance. Any customer considering changing their purchase schedule should contact FBC to coordinate any such change to ensure the change is taken into account prior to FBC submitting the FBC nomination for that day.
12	How far in advance does FBC buy power?	Please see the response to Question 11.
13	Can a customer switch from Option 1 to Option 2 (with regard to the cap)?	FBC will consider the opportunity to change parameters as it develops the service agreements that operate in conjunction with the rate. (Please see the <i>Additional Implementation Notes</i> that accompany this document)
14	How will information on power purchase costs flow to customers? (Some communication is necessary)	FBC is exploring an option where LCIR customers will receive information directly from ICE via e-mail.
15	Will the LCIR have an impact on the amount of deposit held on a customer account?	FBC will consider this question and provide feedback to customers. (Please see the <i>Additional Implementation Notes</i> that accompany this document)
16	Can we look at changing the premium in a non-operating month?	FBC does not view the LCIR pricing as a premium. In the case where a customer has periods of reduced consumption, charges under the rate would be similarly reduced, or, customers could look into serving the baseline load under a firm rate.
17	Is the \$75/MWh linked to the \$40/MWh Mid-C price?	No, the \$75/MWh price (which is a placeholder at the current time) was derived from the RS 31 rate at the prescribed minimum load factor. (Please see the <i>Additional Implementation Notes</i> that accompany this document)
18	Can the cap price be changed from time-to-time to reflect trends in the market price?	(Please see the <i>Additional Implementation Notes</i> that accompany this document)
19	With regard to process safety, will there be a level of communication or consideration for certain customers that cannot shut down without safety concerns?	FBC will work with customers to design the system and communication protocol that best meets the needs of customer while adhering to the principles embedded in the rate. However, FBC reminds customers that it may not be possible to provide notice and this should be taken into account by any customer considering electing to take service under this rate.

20	Is communication expected to be 2-way, with FBC and the customer exchanging information?	Yes. Communication with large customers will remain important, just as it is today and on all other available rates.
21	Can a customer opt-in/out of the Clean Power Adder?	The CPA, if approved by the BCUC, is expected to apply to all customers. Deliberation on the CPA should take place in the Long Term Resource Plan process that is currently before the BCUC.
22	Does the CPA apply to all power supplied to FBC?	The CPA applies to all wholesale market purchases except in rare instances where in order to maintain service to customers, non-clean purchases may have to be made.
23	Does the CEPSPA agreement provide power to FBC on the same basis as that provided to BCH?	No, it does not. Under the CEPSPA, generally speaking, if BCH is buying for both FBC and BCH at the same time the overall mix in regards to carbon should be about the same. However, there could still be substantial differences due to timing differences. The intent is to ensure that high carbon purchases are not assigned to FBC while all the low carbon purchases are delivered to BC Hydro.
24	If BCH decides to source only green power, would the CEPSPA remain as is or would it impact FBC supply as well?	The CEPSPA Agreement is not meant to cover the possibility that BC Hydro may only make low carbon purchases and thereby force Powerex to only deliver low carbon power to FBC as well. The CEPSPA agreement envisions that changing conditions may require flexibility in terms or pricing to deal with unexpected conditions.

1. What will be the circumstances under which a customer may be able to switch from Option 1 to Option 2 (and the reverse) with regard to the price cap?

After an initial 6 month period operating under the rate, a customer can switch from taking service pursuant to the price cap to the strict market price (and vice-versa) by providing written 60 days' notice. The revised pricing will take effect for the Billing Period immediately following the end of the 60 day notice period. Where a customer has changed pricing options, it must wait 180 days from the effective date of the billing change before again providing notice to change options again.

2. Discuss the circumstance that may result in two customers paying a different rate for the same service (one subject to the cap, one not).

In the circumstance where one LCIR customer is subject to the cap, and another is not, the amount charged under the rate may differ. However, FBC does not view this as unjust, unfair, or discriminatory since the applicable rate is at the discretion of the customer and there is a difference in risk associated with each option which provides justification for the differing prices.

3. What will be the process for setting the price cap?

Customer engagement and discussions with the project team have led to refinement with respect to the price cap setting process that was put forward during the engagement sessions. It remains the case that FBC cannot manage individual price caps for customers. In addition, at this time FBC is not able to suggest a methodology that allows multiple customers, including (then) current LCIR customers plus new entrants to reach unanimity on the price cap level on an ongoing basis. Therefore, FBC has revised this aspect of the proposal. A basic mechanism for the establishment of the cap is required, which may include a premium over the derived price to be determined during the approval process for the rate, and the resulting cap will be adjusted in accordance with any general rate adjustment that flows from an Annual Review.

FBC proposes to set the initial LCIR Energy Price Cap in relation to RS 31 as follows, assuming a 100% power factor, a 1 MW load and an 80% load factor as required under the LCIR.

LCIR Energy Price Cap = ((Annual RS 31 Demand Charges + Annual RS 31 Energy Charges) / Annual Consumption) + Discretionary Risk Premium

Where:

Annual RS 31 Demand Charges = \$8,530/month * 12 months = \$102,360

Annual RS 31 Energy Charges = 8,760 hours * 0.8 = 7,008 MWh * \$54.65/MWh = \$382,987

Blended energy rate = \$485,347 / 7,008 MWh = \$69.26 per MWh or \$0.06926 / kWh

FBC proposes a Discretionary Risk Premium of \$0.00574/kWh to arrive at a final cap price of \$0.075 / kWh

The option remains for customers to arrange their own hedging strategies if they so desire.

4. What will be the process for future revisions to the price cap?

The Energy Price Cap will be adjusted in accordance with any general rate adjustment that flows from an Annual Review for Rates (or any other Commission-led process that examines the level of rates generally). The Discretionary Risk Premium will then be adjusted such that the price cap is a whole number. FBC will also consider adjusting the Discretionary Risk Premium in response to a request from LCIR customers that represents a consensus of the LCIR participants that such an adjustment is desired.

5. Does the LCIR result in different security deposit requirements?

The FBC Tariff specifies that a security deposit may not, *“... exceed an amount equal to the estimate of the total bill for the two highest consecutive Months consumption of Electricity by the applicable Premises.”*

At the request of the customer, FBC will review the security deposit requirement for a customer taking service under the LCIR to determine whether the deposit on hand is likely to exceed that allowable under the tariff.

If a customer elects to take power not under the cap, the estimated monthly bill could potentially be higher than envisioned under existing security requirements and additional security may be required to continue service. Depending on market prices this could occur on short notice.

6. What will the potential impact be if a customer not taking power under the cap chooses to self-curtail?

Customers will be able to self-curtail, however since the customer will have provided a purchase schedule to FBC, a revised purchase schedule will have to be communicated to FBC prior to the deadline for such revisions. The amount of notice FBC requires varies depending on the scheduling calendar in the wholesale power markets but is typically between 2 and 5 days in advance. Any customer considering changing their purchase schedule should contact FBC to coordinate any such change to ensure the change is taken into account prior to FBC submitting the FBC nomination for the day on which the customer plans to self-curtail.

7. How will mid-c prices be communicated to customer during the month?

FBC recognizes that visibility of Mid-C pricing information on some basis is likely required by customers and is exploring options by which information can be provided. Initial inquiries with the ICE have been positive with respect to having access to regular updates on Mid-C pricing.

8. How will we prioritize customer applications?

LCIR Applications will generally be processed on a first-come, first served basis. However, FBC reserves the right to consider and weigh, when making an approval decision, the potential system and overall customer benefits of, as well as provincial energy objectives associated with, competing LCIR proposals.

Large Commercial Interruptible Rate (LCIR)

Engagement Session #3

February 2022



Housekeeping

- Presenters will turn their cameras on – optional for others
- Please mute yourself when you're not speaking
- If you have a question, please speak up or raise hand



- We will be taking notes and distributing them later – we will not identify individuals or organizations
- Feel free to provide feedback after the meeting

Agenda

1. FBC Introductions
2. Interruptible Rate Recap
3. Review Evolution of the LCIR
4. Rate Schedule Detail
5. Review Billing Impact
6. Next Steps
7. Questions / Discussion

Interruptible Rate Recap

Interruptible Rate:

A special electricity arrangement under which, in return for lower electricity charges, the customer must allow FortisBC to temporarily cut off the energy supply in order to maintain system integrity and energy flow for firm-service customers.

Why?

- Allows customers to connect where capacity would otherwise not be available under existing system planning criteria;
- Certain customers may be able to realize cost savings and/or bridge to regular rates over time;
- Increases the system load factor (rate mitigation);
- Prohibition on Retail Access

Evolution of the LCIR

Rate Element	Session #1	Session #2	Final Draft
Eligibility	Rate Schedules 30 & 31	No Change	No Change
Interconnection Process	Follow Existing Procedures	No Change	No Change
Reasons for Interruption	<ol style="list-style-type: none"> 1. To maintain service to customers taking service under one of the Company's firm rate schedules; or 2. To avoid any charges that may be levied against the Company related to power supply Imbalance; or 3. To maintain the stability, reliability, and integrity of the FortisBC and Western Inter-connected electrical systems. 	No Change	<ol style="list-style-type: none"> 1. To maintain service to Customers taking service under any of FortisBC's other rate schedules that is not designated as non-firm; 2. To avoid any 3rd Party charges that may be levied against FortisBC related to Imbalance Energy; 3. To maintain the stability, reliability, or integrity of the FortisBC or Western Interconnected electrical systems; or 4. Lack of available transmission; or 5. For Hours where FortisBC reasonably expects that the Energy Charge will be based on the Price Cap.

Rate Element	Session #1	Session #2	Final Draft
Rate Structure	Market-Based (Mid-C) with losses and Transmission Adder	Market-Based (Mid-C) with losses and Transmission Adder and Clean Power Adder	No Change
Transmission Adder	\$10.00 per MWh	No Change	Service Adder - No Change to amount
Clean Power Adder	No	Yes – if approved per Long Term Resource Plan	No Change
Special Conditions	<ol style="list-style-type: none"> 1. Must remain on rate for 12 consecutive months; 2. Must maintain a load factor of 80%*; 3. Must provide FBC with a timely and accurate load forecast; 4. Equipment required for remote disconnection must be installed at customer cost; 5. Customers may split load utilizing separate services; 6. No automatic right to return to firm service; 7. Application is through the existing Industrial Electricity Interconnection process. 	<p>These are mostly the same, except for #5.</p> <ul style="list-style-type: none"> • Separation of Firm and Interruptible load may be done either through separate service, or through system design as approved by FBC. 	No Change

Rate Element	Session #1	Session #2	Final Draft
Program Scope	Enrollment in the initial year limited to 50 MW	No Change	No Change
Price Cap	No	Option of: 1. Charges per the market price regardless of level; 2. Charges based on a rate of \$75/MWh (default)	Energy Rate will be based on the Mid-C rate, capped at \$75 CDN
Notification	None	FortiBC will endeavor to provide notice, where practicable.	No Change
Billing of Separated Services (Firm & Non-Firm)	N/A	In cases where total customer load is separated into firm and interruptible portions, each portion will be billed under the rate schedule appropriate for the size of that portion.	All kWh billed at the rate appropriate for the delivery voltage. (All on the same rate)
Phased in Interruption	N/A	Similar to the separation of load into Firm and Interruptible portions, incremental load shedding may be accommodated if it can be done to the satisfaction of FBC.	No Change

Tariff Schedule 38

Billing Impact

Assumptions:

- \$75.00 CDN cap on Mid-C prices
- 15 MW load, 100% Power Factor, 100% Load Factor
- 2022 RS 31 Rates in all years

	No Curtailment				100% Curtailment			Hours Above \$75 Cap
Year	LCIR Bills	RS 31 Bills	Difference		LCIR Bills	RS 31 Bills	Difference	
2019	\$6,465,820	\$9,058,662	\$2,592,843		\$5,498,125	\$8,359,704	\$2,861,580	744
2020	\$5,130,012	\$9,079,020	\$3,949,008		\$4,980,405	\$8,970,444	\$3,990,039	80
2021	\$7,815,250	\$9,058,662	\$1,243,413		\$4,483,387	\$6,541,056	\$2,057,669	1,840
Total			\$7,785,263				\$8,909,287	2664

Next Steps

- Final Feedback by ?
- BCUC Application Drafting
- Filing



**For further information,
please contact:**

Corey Sinclair



Find FortisBC at:

Fortisbc.com



604-576-7000

Appendix D
DRAFT ORDERS



ORDER NUMBER

G-xx-xx

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Inc.
Application for Approval of a Large Commercial Interruptible Rate and Rate Schedule

BEFORE:

[Panel Chair]
Commissioner
Commissioner

on Date

ORDER

WHEREAS:

- A. On July 6, 2022, FortisBC Inc. (FBC) filed with the British Columbia Utilities Commission (BCUC), pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA), for approval to establish a new rate and Rate Schedule (RS) 38 for the Large Commercial Interruptible Rate (LCIR) for Large Commercial electricity customers (Application);
- B. The RS 38 LCIR would be available to new or existing customers who would otherwise be eligible to receive electricity service under either RS 30 - Large Commercial Service – Primary or RS 31 - Large Commercial Service – Transmission, and which provides non-firm interruptible electricity service under a set of certain defined circumstances; and
- C. The BCUC has commenced review of the Application and considers that the establishment of a public hearing is warranted.

NOW THEREFORE pursuant to sections 59 to 61 of the UCA, the BCUC orders as follows:

- 1. A written public hearing process is established for the review of the FBC Application in accordance with the regulatory timetable as set out in Appendix A to this order.
- 2. As soon as reasonably possible, FBC must publish the Application, this order, and the regulatory timetable on its website and provide a copy of this order and the Application, electronically where possible, to the following:
 - a. All customers served under RS 30 and RS 31 and potential rate participants involved in the consultation process as described in Section 5 of the Application; and

- b. registered interveners in the FBC Annual Review for 2022 Rates proceeding.
3. Parties who wish to actively participate in the proceeding are to register with the BCUC by completing a Request to Intervene Form, available on the BCUC's website at <https://www.bcuc.com/get-involved/get-involved-proceeding.html>, by the date established in the regulatory timetable, and in accordance with the BCUC's Rules of Practice and Procedure attached to Order G-178-22.

DATED at the City of Vancouver, in the Province of British Columbia, this (XX) day of (Month Year).

BY ORDER

(X. X. last name)
Commissioner

Attachment

FortisBC Inc.
Application for Approval of a Large Commercial Interruptible Rate and Rate Schedule

REGULATORY TIMETABLE

Action	Date (2022)
Intervener registration deadline	Thursday, August 4
BCUC Information Request (IR) No. 1 to FBC	Thursday, August 25
Intervener IR No. 1 to FBC	Thursday, September 1
FBC responses to IRs No. 1	Thursday, September 29
FBC Final Submission	Thursday, October 6
Intervener Final Submission	Thursday, October 13
FBC Reply Submission	Thursday, October 20



ORDER NUMBER

G-xx-xx

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Inc.

Application for Approval of a Large Commercial Interruptible Rate and Rate Schedule

BEFORE:

[Panel Chair]
Commissioner
Commissioner

on **Date**

ORDER

WHEREAS:

- A. On July 6, 2022, FortisBC Inc. (FBC) filed with the British Columbia Utilities Commission (BCUC), pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA), for approval to establish a new rate and Rate Schedule (RS) 38 for the Large Commercial Interruptible Rate (LCIR) for Large Commercial electricity customers (Application);
- B. The RS 38 LCIR would be available to new or existing customers who would otherwise be eligible to receive electricity service under either RS 30 - Large Commercial Service – Primary or RS 31 - Large Commercial Service – Transmission, and which provides non-firm interruptible electricity service under a set of certain defined circumstances;
- C. By Order G-xx-22, the BCUC established a regulatory timetable for the review of the Application, which included intervenor registration and one round of BCUC and Intervenor information requests, followed by written final and reply arguments; and
- D. The BCUC has reviewed the Application, evidence and arguments filed in the proceeding and determines that approval is warranted.

NOW THEREFORE pursuant to sections 59 to 61 of the UCA, the BCUC orders as follows:

- 1. The rate and Rate Schedule 38 for the Large Commercial Interruptible Service is approved on a permanent basis, effective 30 days from the date of this order.
- 2. FBC is directed file the Rate Schedule 38 tariff pages for endorsement by the BCUC within 15 days prior to the effective date.

DATED at the City of Vancouver, in the Province of British Columbia, this (XX) day of (Month Year).

BY ORDER

(X. X. last name)
Commissioner