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July 30, 2020

Ms. Marija Tresoglavic
Acting Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Ms. Tresoglavic:

**RE: Project No. 1599053
British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Transmission Service Market Reference-Priced Rates Application –
Incremental Energy Rate Pilot - Reply Argument**

BC Hydro writes in compliance with BCUC Order No. G-179-20 to provide its Reply Argument.

Yours sincerely,



Fred James
Chief Regulatory Officer

rz/ma

Enclosure

Transmission Service Market Reference-Priced Rates Application

Counsel's Written Reply Submission

British Columbia Hydro and Power Authority

July 30, 2020

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1 Introduction

1. The following interveners have filed arguments in the British Columbia Utilities Commission (**BCUC**) proceeding to consider BC Hydro's application (**Application**) for approval of making Rate Schedule (**RS**) 1893 – Incremental Energy Rate available to eligible transmission service customers on a pilot basis, from January 1, 2020 to March 31, 2024 (**Pilot**):
 - Association of Major Power Customers of BC (**AMPC**);
 - BC Old Age Pensioners' Organization *et al.* (**BCOAPO**);
 - BC Sustainable Energy Association (**BCSEA**);
 - Clean Energy Association of British Columbia (**CEABC**);
 - Commercial Energy Consumers Association of British Columbia (**CEC**);
and
 - Movement of United Professionals (**MoveUP**).
2. All the interveners support the approval of the Incremental Energy Rate as a Pilot, though some of the interveners have provided additional qualifications or have expressed concerns regarding certain rate design elements. In section [2](#) below, BC Hydro submits its reply to each intervener's argument filed on July 6, 2020 in turn.
3. After the interveners submitted their arguments, the BCUC Panel issued another round of information requests, and provided the interveners with an opportunity to supplement their argument (if any). BC Hydro's reply to the supplemental arguments is found in section [3](#) below.

2 Reply to Interveners' Final Arguments

2.1 Reply to AMPC Final Argument

4. AMPC supports the Pilot and the timing for the Pilot evaluation, as proposed. BC Hydro has no submissions in reply to AMPC's Final Argument.

2.2 Reply to BCOAPO Final Argument

5. BCOAPO does not oppose the approval of the Incremental Energy Rate as a Pilot, but raises concerns with respect to certain design elements of the Incremental Energy Rate. Additionally, BCOAPO recommends that three additional items be included in the evaluation report of the Pilot. BC Hydro addresses the concerns and recommendation in more detail below.

Rate Design Elements

6. BCOAPO has concerns that for customers commencing service after fiscal 2019, the most recent 12 Billing Periods would not be representative of the customer's normal historic annual energy consumption because of the COVID-19 pandemic, and advocates exclusion of "any months where the COVID-19 pandemic has impacted the customer's operations."¹ This recommended approach is not only rigid but also unnecessary because Special Conditions 8 and 9 of RS 1893 already provide BC Hydro and the customer with the ability to assess and adjust the customer's high load hour (**HLH**) and low load hour (**LLH**) baselines and/or Monthly Reference Demands, consistent with the principles and criteria set out in BC Hydro's Electric Tariff Supplement No. 74 (Customer Baseline Load Determination Guidelines).² These adjustments, subject to the BCUC's approval, ensure that the baselines determined are representative of the customer's normal operation, and could

¹ BCOAPO Final Argument, pages 9 to 10.

² Exhibit B-1-2, Appendix C (amended).

include the impact of the COVID-19 pandemic on the customer's actual electricity usage should such impact occur.³

7. In reply to BCOAPO's statement that there is no need for BC Hydro to exercise discretion to cancel service under RS 1893 where a customer has decided to take service under RS 1880 in the middle of a Billing Year⁴, BC Hydro confirms that Special Condition 13 of RS 1893 does not contain any language permitting BC Hydro to exercise discretion. As stated in that condition, a request for RS 1880 service will result in the automatic cancellation of RS 1893 service:

If a Customer with self-generation taking Electricity under this Rate Schedule requests service under Rate Schedule 1880 (Standby and Maintenance Supply) during any current Billing Period, Electricity supply under this Rate Schedule will be automatically cancelled for the remainder of the Billing Year. The date the Customer's RS 1880 service request is validated by BC Hydro will be the effective date of cancellation. [Emphasis added.]⁵

8. BCOAPO agrees that Mid-C market prices are a reasonable point for pricing incremental energy sales,⁶ but recommends an energy charge adder of \$8.00/MWh for the non-freshet months⁷. BCOAPO argues that the pricing for the incremental energy has not taken into consideration factors such as the different ranges of strike prices to reflect customer participation,⁸ a customer's natural load growth, the potential for load shifting,⁹ and the unclear relationship between the Mid-C market price and BC Hydro's system marginal value¹⁰. BCOAPO further argues that the proposed energy charge adder of \$7.00/MWh

³ BC Hydro Final Argument, page 6.

⁴ BCOAPO Argument, page 10.

⁵ Exhibit B-1-2, Appendix C (amended).

⁶ BCOAPO Final Argument, page 16.

⁷ BCOAPO Final Argument, page 20.

⁸ BCOAPO Final Argument, pages 17 to 18.

⁹ BCOAPO Final Argument, page 19.

¹⁰ BCOAPO Final Argument, page 16.

in non-freshet months is overly reliant upon the views of customers who might take Incremental Energy Rate service.¹¹ BCOAPO's recommendation, however, is based on a misunderstanding of the purpose of the energy charge adder and of the evidence and supporting analyses that BC Hydro has provided, as summarized below:

- The energy charge adder is designed to hold ratepayers harmless, while making the service offering under RS 1893 attractive enough to eligible customers to encourage participation. The energy charge adder of \$7.00/MWh reflects this balance, by incorporating a reasonable margin to address the potential of under-recovering marginal costs from participating customers.¹² BC Hydro conducted a robust analysis of different energy charge adders in both shaped and flat pricing scenarios, which is detailed in sections 5.5.2, 5.5.3, and 5.5.4 of the Application, and consulted with potential customers and stakeholders on the suitable energy charge adder. Consistent with AMPC's proposal set out in section 3.4.3 of the Application and feedback from customers to make the energy charge adder fair, transparent and easy to understand, BC Hydro proposed an energy charge adder of \$7.00/MWh in non-freshet months, which is low enough to encourage customer participation and drive additional incremental load and high enough that other ratepayers are not negatively impacted in most of the scenarios analyzed.¹³
- The energy charge adder serves to mitigate ratepayer risks by recovering, on an expected basis, BC Hydro's marginal costs for supplying incremental energy; but it is not the sole measure under RS 1893 designed to protect the ratepayers. Other design elements may be more practical, effective or transparent to address certain potential risks. For instance, as BCOAPO has

¹¹ BCOAPO Final Argument, pages 19 to 20.

¹² Exhibit B-4, BCUC IR 1.22.1; Exhibit B-5, BCOAPO IR 1.25.1.

¹³ Exhibit B-4, BCUC IR 1.23.2.

acknowledged,¹⁴ Special Conditions 8 and 9 allow a customer's baselines to be adjusted to reflect natural growth, while Special Condition 11 sets the maximum level of electricity available to a customer under RS 1893. At the end of the Pilot, BC Hydro will assess whether these design elements have suitably and sufficiently mitigated certain identified risks.¹⁵

- There is no evidence that an energy charge adder of \$8.00/MWh would sufficiently cover the missing elements claimed by BCOAPO, or would further benefit the ratepayers. As BC Hydro illustrates in Exhibit B-13, response to BCUC Panel IR 1.1.2, there are many factors that can influence the impact of the Incremental Energy Rate on ratepayers.
- The strike price is a notional daily price point at which it is deemed by customers to be uneconomic to take service under the Incremental Energy Rate. It is not part of RS 1893 pricing, nor does it change with the energy charge adder. By holding it constant for modelling purposes, BC Hydro was able to illustrate that a higher RS 1893 energy charge would reduce expected incremental load and a lower RS 1893 energy charge would increase expected incremental load.¹⁶ While it is not necessary to consider a range of strike prices when setting the energy charge adder, as suggested by BCOAPO,¹⁷ BC Hydro did provide, at BCOAPO's request, a table showing different ranges of strike price.¹⁸
- Contrary to BCOAPO's assertion that \$7.00/MWh was proposed based on the view of a potentially biased group of customers, the consultation conducted by BC Hydro was extensive and included customers and stakeholders that have no current interest or ability to participate. This consultation is detailed in

¹⁴ BCOAPO Final Argument, pages 13 to 14.

¹⁵ Exhibit B-1, Application, section 5.7.

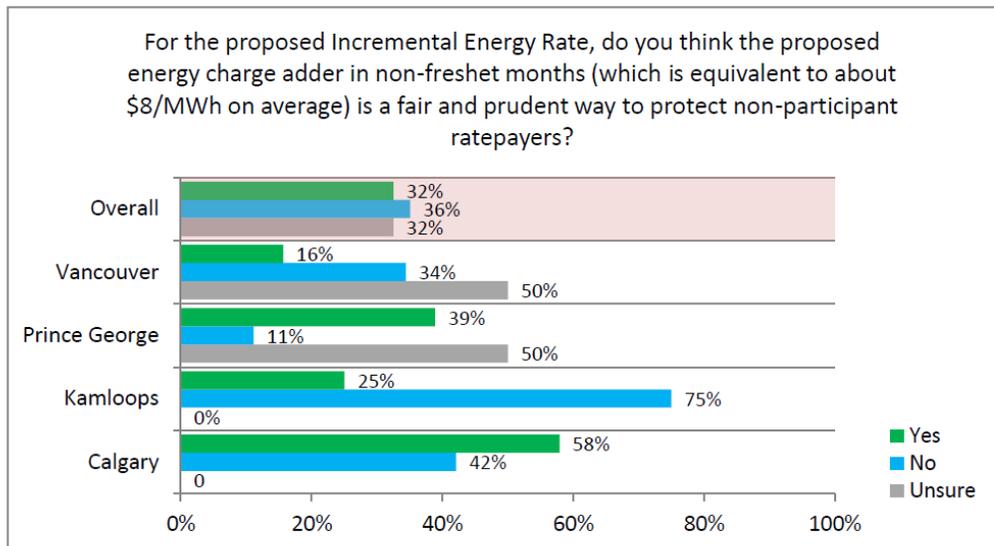
¹⁶ Exhibit B-4, BCUC IR 1.22.2.

¹⁷ BCOAPO Final Argument, pages 17 to 18.

¹⁸ Exhibit B-5, BCOAPO IR 1.41.2.

section 3.4 of the Application and Appendix G to the Application. For instance, specific to the appropriate level of an energy charge adder, BC Hydro surveyed the 94 attendees at the September 2019 workshop, and 77 responded. The figure below (reproduced from Appendix G to the Application) shows that roughly one-third of the respondents did not support an energy charge adder of \$8.00/MWh.

Figure 7: Incremental Energy Rate: Risk Mitigation for Non-Participants (77 total respondents)



- BCOAPO expresses a “greater concern” about the “uncertain” correlation between the Mid-C market price and BC Hydro’s system marginal value particularly because the marginal resource used for supplying service under the Incremental Energy Rate in non-freshet months would be mostly from system basis generation (i.e., Condition 3).¹⁹ BCOAPO also contends that the determination of the energy charge adder “did not allow for the uncertainty

¹⁹ BCOAPO Final Argument, page 16 and 20.

regarding the relationship between Mid-C prices and BC Hydro's system marginal values."²⁰

10. BC Hydro replies that in both the Application and responses to information requests, it has explained the function of the Mid-C market price, its relationship to BC Hydro's system marginal value, and the use of the system marginal value in the ratepayer impact analysis and the energy charge adder modeling. For example,
- In Exhibit B-1, Application, pages 73 to 74, BC Hydro explains what the system marginal value represents and how the system marginal value relates to the forecast revenue and forecast net revenue gain (loss);
 - In Exhibit B-4, BC Hydro's response to BCUC IR 1.11.1, BC Hydro explains why it has used the Mid-C price as a transparent proxy for its modelled system marginal value and why the system marginal value is the best value to use as the cost of serving an incremental load when system storage is the marginal resource (i.e., Condition 3);
 - In Exhibit B-13, BC Hydro's response to BCUC Panel IR 1.2.2, BC Hydro explains how the expected incremental net revenue from service under RS 1893 is calculated; and
 - In Exhibit B-1, Application, section 5.5.2, BC Hydro explains the energy charge adder modeling and that the modeling "results are sensitive to BC Hydro's forecast of system marginal values, forecast Mid-C market prices, assumed customer-specific incremental consumption and energy charge adder pricing".

²⁰ BCOAPO Final Argument, page 20

Evaluation Report

11. BCOAPO seems to concur with the proposed December 2023 timing for BC Hydro's evaluation report for the Pilot, but suggests that three additional items be included in the evaluation report. BC Hydro's position with respect to each recommended item is set out below:
- First, BCOAPO recommends that BC Hydro review the annual sum of energy that is represented by each participating customer baselines under RS 1823 and under RS 1893. BC Hydro is amenable to this recommendation. BC Hydro confirms that BCOAPO's request to examine whether the usage of each participant customer's RS 1823 energy has changed will be considered as part of the load shifting analysis.
 - Second, BCOAPO questions whether the methodology used to analyze the load shifting impact for RS 1892 - Freshet Energy Rate would be appropriate for conducting the same analysis for the Incremental Energy Rate, and recommends that BC Hydro explain the appropriateness of the methodology. Such an explanation, however, is not necessary. Load shifting, by definition, is not limited to shifting load from freshet months to non-freshet months, and includes energy that a customer would have purchased in the absence of service under RS 1893, such as for natural load growth, unexplained load variances and the use of RS 1893 as a replacement service for RS 1880 during events of forced generator outage. BC Hydro has already committed to examining load shifting in its evaluation of the Incremental Energy Rate.²¹
 - Third, while recognizing the confidential nature of BC Hydro's system marginal value, BCOAPO recommends that the BCUC direct BC Hydro to "find some ways of addressing this issue" given its perceived importance of system marginal value where the deemed marginal resource for

²¹ Exhibit B-1, Application, page 84.

servicing RS 1893 load in non-freshet months is most likely to be system basin generation. BC Hydro maintains its position that providing public information indicative of the system marginal value of BC Hydro resources could compromise BC Hydro's ability to benefit from energy trade. Additionally, as part of the evaluation, BC Hydro will assess the sufficiency of the \$7.00/MWh energy charge adder to protect ratepayers from harm over the course of the Pilot.²²

2.3 Reply to BCSEA Final Argument

12. BCSEA supports the Incremental Energy Rate as applied for and the timing proposed for evaluating the Pilot. BC Hydro has no submissions in reply to BCSEA's Final Argument, except to acknowledge that December 2024 could be an alternative filing date for the evaluation report.

2.4 Reply to CEABC Final Argument

13. CEABC supports both the Incremental Energy Rate and the timing for the evaluation as proposed. BC Hydro has no submissions in reply to CEABC's Final Argument.

2.5 Reply to CEC Final Argument

14. CEC supports the approval of the Incremental Energy Rate,²³ but recommends a two-year "high level" interim evaluation report and that BC Hydro implement a similar rate for commercial customers (i.e., customers taking service from BC Hydro under rate schedules for General Service).²⁴

²² Exhibit B-1, Application, page 84.

²³ CEC Final Argument, paragraph 5.

²⁴ General Service is defined in BC Hydro's Electric Tariff as "Service for business, commercial, institutional or industrial use, including use in nursing homes, boarding houses, rooming houses, common areas of multiple occupancy buildings, recreational establishments, marinas and yacht clubs, hotels, motels, mobile home parks and similar establishments or parts thereof, or for any other use not specifically provided for in the Electric Tariff."

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15. CEC's recommendation that an interim report be filed after two years to identify the risks and benefits is primarily due to the considerations that the Incremental Energy Rate is a new service offering for BC Hydro and that the risk of potential load shifting and consequences from the COVID-19 pandemic are unknown.²⁵
16. BC Hydro is not supportive of an interim report for the following reasons:
- The evaluation report, if filed in December 2023, will cover a period of 39 months (i.e., from the commencement of January 1, 2020 to the end of BC Hydro's fiscal 2023, March 31, 2023).²⁶ BC Hydro expects that this period is long enough to provide BC Hydro with sufficient data to assess risks and benefits under a variety of circumstances, including the impact of the COVID-19 pandemic. An interim report after two years will not provide sufficient information to fully analyze the impact of RS 1893. In addition, it may not allow for adequate time to have passed following the COVID-19 pandemic to fully understand its impact on customer operations.
 - One of the purposes of the evaluation report is to help to inform BC Hydro, the BCUC and interveners with respect to a decision on whether the Pilot should continue, and, if so, on what terms. Even if a two-year interim report were to identify certain risks and benefits, BC Hydro considers that it would be premature to rely on such results to implement any changes to the Pilot for the remainder of the Pilot period. The single evaluation in December 2023 can provide a more refined assessment of the Incremental Energy Rate and will help to inform all parties in the making of a determination on the future of the Incremental Energy Rate.

²⁵ CEC Final Argument, paragraphs 57 to 59.

²⁶ Exhibit B-11, BCUC IR 3.5.1.2.

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17. The CEC also recommends that the BCUC direct BC Hydro to commence developing a similar rate for commercial customers, with a pilot to commence in two years, because: (i) BC Hydro's review of potential rate options through the process outlined in the Provincial Government's Comprehensive Review of BC Hydro: Phase 2 Interim Report does not provide comfort for a timely service offering;²⁷ and (ii) a rate could be considered discriminatory if "it is not offered to any other ratepayer group to whom it might benefit."²⁸
18. BC Hydro has stated that it is open to exploring similar pilots or tariffs for commercial customers.²⁹ However, whether to implement a new non-firm service offering to a specific class of customers on a pilot basis depends on many factors, such as customer interest, the customer's ability to manage its electrical load in response to electricity price variation and risk, and BC Hydro's resource and costs required to conduct consultation and design and to file and implement a similar rate design to a broader class of customers. BC Hydro notes that to date there has been limited interest in such a rate from commercial customers.³⁰
19. In regards to CEC's argument that the Incremental Energy Rate is discriminatory, BC Hydro's position articulated in paragraph 29 of its Reply Argument submitted on April 15, 2020 (**April 15 Reply Argument**) and the BCUC's reasoning in its May 1, 2020 decision on RS 1892 - Freshet Energy Rate remains applicable and accurate.³¹ The Incremental Energy Rate is not unduly discriminatory or unduly preferential within the meaning of section 59 of the *Utilities Commission Act*, because service provided to eligible transmission

²⁷ CEC Final Argument, paragraph 63.

²⁸ CEC Final Argument, paragraph 64.

²⁹ Exhibit B-5, CEC IR 1.1.1.

³⁰ Exhibit B-5, CEC IRs 1.1.1.1, 1.1.1.2.

³¹ Appendix A to Order No. G-104-20, Reasons for Decision, page 22.

service customers and service provided to commercial customers are not under substantially similar circumstances and conditions.

20. To the extent CEC argues that there is “subsidy” between rate classes because of inequitable distribution of benefits,³² this argument is not supported by any evidence. Similar to BC Hydro’s argument in regard to RS 1892 - Freshet Energy Rate,³³ RS 1893 - Incremental Energy Rate is only available to provide incremental energy on a non-firm, interruptible basis and as an option to customers already taking firm service for their full normal load pursuant to RS 1823 or RS 1828. It is not available as a stand alone service. The rate is designed to recover the marginal cost of energy and to make some contribution to fixed costs, which is expected to be beneficial to all ratepayers.³⁴

2.6 Reply to MoveUP's Final Argument

21. MoveUp supports the Incremental Energy Rate as applied for and the timing proposed for evaluating the Pilot.³⁵
22. MoveUP reiterates its concerns about the *ad hoc* nature of BC Hydro’s rate designs to address emerging situations, similar to what it has expressed with respect to BC Hydro’s application for approval of RS 1892 – Freshet Energy Rate, and urges that the BCUC undertake a comprehensive review of BC Hydro’s rate structures “as a top priority”.³⁶ In reply, BC Hydro adopts its reasoning in paragraph 6 of the April 15 Reply Argument. BC Hydro maintains that the appropriate approach to exploring re-design of existing rates and optional residential and commercial rates is through the process and scope outlined in the Government’s Comprehensive Review Report.

³² CEC Final Argument, paragraph 67.

³³ BC Hydro Final Argument, April 15, 2020, paragraph 28.

³⁴ Exhibit B-1, Application, page 2; Exhibit B-4, BCUC IR 1.9.4.

³⁵ MoveUP Final Argument, page 3.

³⁶ MoveUP Final Argument, page 3.

3 Reply to Supplemental Arguments

23. The BCUC Panel issued a round of information requests (**Panel IRs**) after the filing of arguments by interveners, and provided the interveners with an opportunity to file supplement argument (if any), after reviewing BC Hydro's responses to Panel IRs. AMPC, BCSEA, and CEC filed its respective supplemental argument.
24. The Panel IRs focus mainly on two topics: (i) the impact of Catalyst Paper Corporation (Catalyst)'s separate application with the BCUC to request reduction of its RS 1893 baselines, and (ii) the potential of an interim report before December 2023.
25. BC Hydro notes that none of the three interveners aforementioned changed their support of the Pilot after reviewing BC Hydro's responses to Panel IRs. Both AMPC and BCSEA expressed that Catalyst's application should not affect the approval of the Incremental Energy Rate as requested by BC Hydro in the current proceeding.³⁷
26. With respect to the frequency of the evaluation report, all three parties are not opposed to an interim or annual report. CEC again recommends a two-year, high level interim report. BC Hydro maintains its position regarding the frequency of the evaluation report as stated in paragraph [16](#) above. However, if the BCUC directs an interim evaluation report to be filed in December 2021, BC Hydro submits that the content for the report should be limited to what is proposed by BC Hydro in Exhibit B-13, BCUC Panel IR 1.2.4.2.

³⁷ AMPC's Supplemental Argument, page 2; BCSEA Supplemental Argument, paragraph 1.

ALL OF WHICH IS RESPECTFULLY SUBMITTED JULY 30, 2020



Per: _____

Song Hill, Senior Solicitor & Counsel
British Columbia Hydro and Power Authority