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April 15, 2020

Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

**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 – Freshet
Rate Component
Reply Argument**

BC Hydro writes in compliance with BCUC Order No. G-49-20 to provide its Reply Argument.

Yours sincerely,

Fred James
Chief Regulatory Officer

jc/ma

Enclosure

**Transmission Service Market Reference-Priced
Rates Application**

**Counsel's Reply Argument
on behalf of
British Columbia Hydro and Power Authority**

April 15, 2020

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1 Introduction

1. The following interveners actively participated in the British Columbia Utilities Commission (**BCUC**) proceeding to consider BC Hydro's application for approval to make the Rate Schedule (**RS**) 1892 – Freshet Rate available on an ongoing basis, commencing April 1, 2020 and with no fixed termination date:
 - Movement of United Professionals (**MoveUP**);
 - BC Sustainable Energy Association (**BCSEA**);
 - Association of Major Power Customers of BC (**AMPC**);
 - BC Old Age Pensioners' Organization *et al.* (**BCOAPO**);
 - Commercial Energy Consumers Association of British Columbia (**CEC**);
and
 - Clean Energy Association of British Columbia (**CEABC**).

2. The interveners represent diverse interests, and all of the interveners support the BCUC granting approval of the RS 1892 – Freshet Rate on an ongoing basis, but the forcefulness of and condition(s) of their support vary as follows:
 - BCSEA, AMPC and CEABC support the BCUC approving RS 1892 on an ongoing basis, on the terms BC Hydro applied for;¹
 - MoveUP supports the BCUC approving RS 1892 on an ongoing basis, on the terms BC Hydro applied for, but subject to a condition that BC Hydro undertake a comprehensive review of its rate structures within three years;

¹ AMPC supports BC Hydro's proposal to re-evaluate the performance of RS 1892 in ten years, in alignment to the forecast freshet period energy surplus. BCSEA and CEABC suggest that the performance of RS 1892 should be re-evaluated in five years based on the possibility that electrification initiatives could increase domestic load in the freshet period.

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- CEC supports the BCUC approving RS 1892 on an ongoing basis, on the terms BC Hydro applied for, but subject to a review in five to six years including further review at that time of potentially making the service interruptible for economic reasons; and
 - BCOAPO supports an ongoing freshet rate in principle, but submits that the offer of RS 1892 on the terms BC Hydro applied for should be suspended (after the 2020 freshet period) until such time as BC Hydro brings forward another application that includes unspecified changes to RS 1892 to ensure non-participating customers are held harmless and the BCUC approves such application.
3. MoveUp and the CEC, in addition to supporting the BCUC granting approval of RS 1892 on an ongoing basis, also request the BCUC to make orders that are unrelated to this proceeding's scope as established by Exhibit A-5 and Order No. G-49-20.
 4. In the sections that follow, we provide BC Hydro's reply to each intervener's submissions in turn.

2 Reply to Intervener Final Arguments

2.1 Reply to MoveUP's Final Argument

5. The MoveUP submission includes eloquent commentary on today's uncertain context and changing societal needs. This commentary is in support of MoveUP's position that the BCUC should "condition" the approval of RS 1892 on a direction to BC Hydro to undertake a comprehensive review of its rate structures within a three-year time frame.²
6. While BC Hydro certainly agrees that customer needs and preferences are changing and that the future might be more uncertain now than at any time in

² MoveUP Final Argument, paragraphs 23 to 24.

recent memory, BC Hydro does oppose the BCUC imposing, at this time, a deadline for comprehensive review of BC Hydro's rate structures. The Provincial Government's Comprehensive Review of BC Hydro: Phase 2 Interim Report³ outlines several rate design options for BC Hydro to explore, discuss with stakeholders and potentially propose to the BCUC for approval. Additionally, the regulatory workload on BC Hydro, the BCUC and stakeholders is already going to be high over the next several years with the preparation, stakeholder engagement and regulatory review of BC Hydro's Integrated Resource Plan (IRP) as one example. It is therefore not practical to impose a deadline on comprehensive review of BC Hydro's rate structures at this time. BC Hydro's view is 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.

7. In regards to the Freshet Rate itself, MoveUP confirms that BC Hydro's evidence in this proceeding has allayed many of MoveUP's concerns about the rate.⁴ MoveUP has two lingering concerns, as follows:⁵

"One is BC Hydro's decision not to reserve a right of curtailment for economic reasons (i.e., developments that harm non-participants financially). The other is Hydro's resistance to monitoring or reviewing the performance of the rate for at least a decade. In combination, these elements create the risk that the Freshet Rate could veer a long way from its intended impacts over time, undetected, to the potential detriment of non-participants and of BC Hydro itself. Even before COVID-19, it was apparent that the energy sector was embarking on a period of fundamental change in electricity supply, loads and needs, emerging at an accelerating pace. Add a global health and economic crisis at the beginning of the proposed Freshet

³ https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydro_cr_ph2_ir_mar06_2020_f.pdf.

⁴ MoveUP Final Argument, paragraph 18.

⁵ MoveUP Final Argument, paragraph 19.

Rate's "hands-off" decade, and the problems with this holding-pattern become clearer still."

8. BC Hydro replies that it is not supportive of a requirement to re-evaluate the Freshet Rate in the near term because BC Hydro is of the view that it is not possible for the Freshet Rate to "veer a long way from its intended impacts" in the near term, and therefore re-evaluation in such timeframe would be an unnecessary expense. Even in the context of changing customer needs and COVID-19, there is no reason to expect material change to the foundational assumptions of the Freshet Rate, being: (i) BC Hydro has a recurring energy surplus in freshet periods which is expected to last at least ten years; (ii) Mid-C market electricity prices are generally very low during freshet periods; and (iii) many RS 1823 and RS 1828 customers have flexibility in their industrial plants and processes enabling them to make more product and higher value products if given a price signal for power to do so.⁶
9. Additionally, BC Hydro's expectation is that conditions over the near to medium term are likely to fall within the range of conditions that were observed and evaluated over the four years of the pilot. As such, re-evaluation of the Freshet Rate in the near term is not expected to meaningfully expand the information already available nor to be an efficient use of resources.⁷
10. Finally, RS 1892 will be reviewed as part of the planned 2023 evaluation of the RS 1893 – Incremental Energy Rate if that rate is approved as requested.⁸ Specifically, BC Hydro has committed to assess participation and usage of the Incremental Energy Rate Pilot compared to the Freshet Rate and assess the impact of the Incremental Energy Rate Pilot on RS 1892, and other non-firm service options such as RS 1880, to determine if BC Hydro should continue to offer multiple optional non-firm services or a single non-firm service. In addition,

⁶ BC Hydro Final Argument, paragraphs 10 and 13 to 15.

⁷ BC Hydro Final Argument, Part 3.

⁸ Refer to Evaluation Criteria (l) and (m) on page 85 of the Application.

BC Hydro's IRPs will assess the freshet period energy surplus as well as forecasts of load and market prices. If the BCUC considers that BC Hydro should be required to re-evaluate and report on RS 1892 sooner than the proposed ten-year time frame, BC Hydro would suggest that a reasonable alternative would be for BC Hydro to re-evaluate the Freshet Rate and report on the on-going appropriateness of the rate following BC Hydro's second IRP. The IRP will provide the comprehensive information on domestic loads, market prices and the freshet period energy surplus to support the review of whether the Freshet Rate should continue.

11. With respect to MoveUP's proposal in paragraph 26 of its Final Argument, BC Hydro notes only that the MoveUP proposal is clearly well outside the scope of this proceeding.

2.2 Reply to BCSEA Final Argument

12. BC Hydro has no submissions in reply to BCSEA's Final Argument, except for BCSEA's paragraph 22 where BCSEA recommends a requirement that BC Hydro provide an evaluation report on the Freshet Rate in five years time. As discussed in paragraphs 8 to 10 of this Reply Argument, above, if the BCUC considers that BC Hydro should be required to re-evaluate and report on RS 1892 sooner than the proposed ten-year time frame, BC Hydro would suggest that a reasonable alternative would be for BC Hydro to re-evaluate the Freshet Rate following BC Hydro's second IRP submitted to the BCUC.

2.3 Reply to AMPC Final Argument

13. BC Hydro has no submissions in reply to AMPC's Final Argument.

2.4 Reply to BCOAPO Final Argument

14. BCOAPO supports (or at least, does not oppose) an ongoing freshet rate in principle, but submits that the offer of RS 1892 on the terms BC Hydro applied for should be suspended (after the 2020 freshet period)⁹ until such time as BC Hydro brings forward another application that includes unspecified changes to RS 1892 to ensure non-participating customers are held harmless and the BCUC approves such application.¹⁰
15. The BCOAPO's position is fundamentally based on a misunderstanding of the benefits RS 1892 provides to participating customers, and therefore a view that non-participating ratepayers do not receive an adequate share of the overall benefits of RS 1892. On that basis, BCOAPO submits that the allocation of benefits as between participants and non-participants can be "rebalanced" without materially diminishing the overall benefits.
16. In reply to the submissions in section 3.1 of the BCOAPO's Final Argument, it is not reasonable for BCOAPO to characterise the \$5.8 million net ratepayer benefit figure as "significantly overstated".¹¹ BC Hydro has been clear in its evidence that the \$5.8 million figure is an accurate estimate of the deemed ratepayer benefit over the four years of the pilot before adjustments for items such as implementation costs and "load shifting" impacts, and that the overall ratepayer net benefit after such adjustments was less than the \$5.8 million. This is clearly documented in BC Hydro's response to BCUC Pre-filed Question 6.0 for SRP, for example, which provides the following table.

⁹ BCOAPO Final Argument, section 3.4, top of page 14.

¹⁰ BCOAPO Final Argument, section 3.4, page 12.

¹¹ BCOAPO Final Argument, section 3.1, page 6.

Ratepayer Benefit - Adjustment Description	Year 1 (\$,000)	Year 2 (\$,000)	Year 3 (\$,000)	Year 4 (\$,000)	Total (\$,000)
Preliminary ratepayer benefit	\$ 2,259	\$ 2,194	\$ 1,872	\$ (543)	\$ 5,782
Less implementation costs	\$ (115)	\$ (30)	\$ (60)	\$ (91)	\$ (296)
Less customer-reported load shift impact	\$ (32)	\$ -	\$ -	\$ -	\$ (32)
Less unexplained load variance impact	\$ -	\$ -	\$ -	\$ -	\$ -
Less natural load growth impact	\$ (470)	\$ (340)	\$ (205)	\$ -	\$ (1,015)
Less RS 1880 replacement service impact	\$ (233)	\$ (820)	\$ (220)	\$ -	\$ (1,273)
Adjusted Ratepayer Benefit*	\$ 1,409	\$ 1,004	\$ 1,387	\$ (634)	\$ 3,166
<i>*actuals for Year 1 and Year 2; REVISED forecast for Year 3 load shifting; insufficient information available for Year 4</i>					

17. The BCOAPO also argues in section 3.1 of its Final Argument that the 569 GWh figure is “also overstated”,¹² which is not an accurate statement. BC Hydro confirms that the 569 GWh represents actual billed RS 1892 energy sales. It accurately represents the amount by which domestic energy sales increased over the four freshet periods of the pilot; what is less certain is the extent to which some of that increase might have occurred and been billed under other rate schedules if the Freshet Rate had not been offered. BC Hydro has estimated such “load shifting” impacts; however, there is significant uncertainty in estimating precisely what would have happened in a counter-factual scenario. Most importantly for the purpose of the matter at issue (that is, whether RS 1892 should be approved on an ongoing basis), through the experience of the pilot BC Hydro has gained knowledge in regards to load shifting such that going forward BC Hydro is well positioned to continue to appropriately manage load shifting. Further, it would be unreasonable to assume that estimates of load shifting in the first two years of the pilot are indicative of load shifting going forward. Refer also to BCSEA’s Final Argument at paragraph 11, CEC’s Final Argument at paragraphs 74 to 76, and CEABC’s Final Argument at pages 6 to 7 for their perspectives that load shifting risk can be appropriately managed and therefore should not be a concern going forward.

¹² BCOAPO Final Argument, section 3.1, page 6.

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18. In reply to the submissions in section 3.2 of the BCOAPO's Final Argument, BCOAPO's submissions on the benefits of RS 1892 to participating customers are not accurate. The opportunity of service under RS 1892 enables participating customers to use incremental energy (that they otherwise would not use if priced per RS 1823 or RS 1828 because it would not be economic to do so) to increase and/or optimize flexible production capacity. The benefit to a participating customer will depend on the individual customer's cost of incremental production (including cost of incremental energy) and the market value of such production. That benefit will be unique to each customer. The BCOAPO refers in section 3.2 of its Final Argument, to page 13 of Appendix D to the Application (the Freshet Rate Pilot Final Evaluation Report – December 2018), but BC Hydro clearly stated at that reference that the difference between the RS 1892 price and the RS 1823 price is only an "illustrative estimate" of the total electricity cost reduction for participating customers, and that the analysis does not consider customer-specific benefits from the production and sale of incremental product. It also does not consider participating customer costs or risks. Accordingly, the submissions in section 3.2 of the BCOAPO Final Argument misapprehend the actual benefits to participating RS 1892 customers and are not a reasonable basis for any submission on appropriate sharing of RS 1892 benefits.
19. In reply to the submissions in section 3.3 of the BCOAPO's Final Argument, the BCOAPO is correct that there is no "guarantee" that RS 1892 as applied for will produce positive net revenues every day or every freshet period. BC Hydro's position is that RS 1892 as applied for provides positive net revenues under Condition 1, reasonably manages the deemed economic loss under Condition 2 and provides a benefit under Condition 3 in most expected scenarios.¹³ The

¹³ BC Hydro Final Argument, paragraph 30.

result is that RS 1892 service is expected to provide ratepayer benefit across most individual freshet periods, and over multiple years.¹⁴

20. BCOAPO's recommended reliance on the calculations provided in BC Hydro's response to BCUC IR 1.7.1 is not appropriate. As noted on pages 8 to 9 of BCOAPO's Final Argument, BC Hydro cautioned against the reliance BCOAPO is placing on those calculations. As outlined in those cautionary statements of BC Hydro, the calculations produced by the model used for the response to BCUC IR 1.7.1 are the product of the input values specified in the applicable IR or assumed. In particular, customer behaviour was held constant in those calculations; however, RS 1892 is an optional service with variable market-based pricing and the pilot results verify that customers do respond to the variable pricing. The results of the four year pilot reflect the actual decisions of customers in the context of both the actual RS 1892 pricing structure and the individual circumstances of each customer's plant (e.g., the customer's cost of incremental production and the market value of such production). Please refer to BC Hydro's response to BCUC Pre-filed Question 7.0 for SRP, which uses the same modeling and assumptions as performed for BC Hydro's response to BCUC IR 1.7.1 including the 46 years of historical weather sequences, and supports BC Hydro's position that RS 1892, on the terms applied for, will result in positive net ratepayer benefits under most conditions.
21. In reply to the submissions in section 3.4 of the BCOAPO's Final Argument, BC Hydro reiterates the submissions in paragraph 18 of this Reply Argument, above, that the BCOAPO's assessment of the benefits to participating RS 1892 customers is not appropriate and is not a reasonable basis for any view on benefit sharing nor any proposed "rebalancing of the benefits" through changes to the rate design. With respect to consideration of whether RS 1892 service ought to be subject to curtailment for economic reasons, BC Hydro's position is

¹⁴ BC Hydro Final Argument, paragraph 31.

fully detailed in its evidence¹⁵ and summarised in its Final Argument at paragraphs 32 to 33.

22. In reply to the submissions in section 3.5 of the BCOAPO's Final Argument, as discussed in paragraphs 8 to 10 of this Reply Argument, above, if the BCUC considers that BC Hydro should be required to re-evaluate and report on RS 1892 sooner than the proposed ten-year time frame, BC Hydro would suggest that a reasonable alternative would be for BC Hydro to re-evaluate the Freshet Rate and report on the on-going appropriateness of the rate following BC Hydro's second IRP submitted to the BCUC. BC Hydro also confirms, as discussed in paragraph 10 above, that RS 1892 will be reviewed as part of the planned 2023 evaluation of the RS 1893 – Incremental Energy Rate if that rate is approved as requested.

2.5 Reply to CEC Final Argument

23. The CEC, in its summary position stated in paragraph 8 of its Final Argument (and in Part H of its Final Argument), recommends that the BCUC approve the Freshet Rate as applied for, subject to a requirement that BC Hydro re-evaluate the Freshet Rate in five to six years including identification of potential parameters for curtailment for economic reasons.
24. As discussed in paragraphs 8 to 10 of this Reply Argument, above, if the BCUC considers that there should be a review of RS 1892 sooner than the proposed ten-year time frame for re-evaluation, BC Hydro would suggest that a reasonable alternative would be for BC Hydro to re-evaluate the Freshet Rate and report on the on-going appropriateness of the rate following BC Hydro's second IRP.
25. With respect to consideration of whether RS 1892 service ought to be subject to curtailment for economic reasons, BC Hydro's position is fully detailed in its

¹⁵ Exhibit B-6, the responses to BCUC Pre-filed Questions 2.0 and 5.0 for SRP; Exhibit B-4, the response to BCUC Staff IR 1.9.4; and Exhibit B-5, the response to BCSEA IR 1.3.1.

evidence¹⁶ and summarised in its Final Argument at paragraphs 32 to 33. The CEC asserts in paragraph 71 of its Final Argument that “customer expectations and understanding of when such curtailment [for economic reasons] might occur can be managed appropriately” (underlining added). The CEC offers no basis for its claim that customer expectations and understanding of such curtailment can be “managed appropriately” and does not address the concerns BC Hydro raised in its evidence.¹⁷

26. The CEC, in its summary position stated in paragraph 9 of its Final Argument (and in section G of its Final Argument) recommends that the BCUC encourage BC Hydro to develop a four-year pilot for a freshet rate for commercial customers within the next two years.
27. As discussed in paragraph 6 of this Reply Argument, above, BC Hydro opposes the BCUC imposing, at this time, a deadline for a new rate proposal or proposals. BC Hydro's view is that the appropriate approach to exploring changes to existing rates and optional residential and commercial rates is through the process outlined in the Government's Comprehensive Review Report. In that process, BC Hydro is conducting preliminary analysis on a number of optional rate designs as part of the Phase 2 Review. Based on feedback from the Phase 2 Review, with further analysis, and engagement with stakeholders and customers as part of a BCUC rate design application process, BC Hydro will determine which optional rates to pursue.
28. In Part C of its Final Argument, the CEC critiques BC Hydro's assessment of RS 1892 against the Bonbright criteria. In reply, we submit that assessing RS 1892 by itself against Bonbright's fair apportionment of costs criterion is probably not helpful because RS 1892 is not available as a stand-alone service. RS 1892 is only available to provide incremental non-firm service during the

¹⁶ Exhibit B-6, the responses to BCUC Pre-filed Questions 2.0 and 5.0 for SRP; Exhibit B-4, the response to BCUC Staff IR 1.9.4; and Exhibit B-5, the response to BCSEA IR 1.3.1.

¹⁷ *Ibid.*

freshet period as an option to customers taking firm service for their full normal load pursuant to RS 1823 or RS 1828.

29. In paragraphs 27 to 38 of its Final Argument, the CEC submits that RS 1892 is “somewhat discriminatory in that it is not offered to other ratepayers such as commercial customers”.¹⁸ The CEC makes that submission in support of a recommendation that a freshet rate should be extended to commercial customers. In reply, BC Hydro submits that it is not unduly discriminatory under the *Utilities Commission Act* if the Freshet Rate is offered only to customers taking service under RS 1823 or RS 1828, and not other classes of customers. Discrimination in rates is typically identified if a rate or service extended to a person is not also extended to other persons under substantially similar circumstances and conditions for service of the same description.¹⁹ The service provided to general service (commercial) customers is not the same as the service provided to RS 1823 and RS 1828 transmission service customers, which is why these customers are in different classes of service. The submissions in paragraph 18 of this Reply Argument, above, also address this part of the CEC’s Final Argument.

2.6 Reply to CEABC Final Argument

30. BC Hydro has limited submissions in reply to CEABC’s Final Argument, as follows:
- CEABC’s comments on pages 6 to 7 of its Final Argument in regards to load shifting are reasonable and warrant the BCUC’s consideration.
 - CEABC’s comment on page 8 of its Final Argument under “**Profit or loss on Market Imports?**” is not quite correct. Please refer to paragraph 23 of

¹⁸ CEC Final Argument, paragraph 36.

¹⁹ *Utilities Commission Act*, section 59.

BC Hydro's Final Argument for the deemed impact in the analysis when BC Hydro is importing and market prices are negative.

31. In Part D of its Final Argument, CEABC recommends a requirement that BC Hydro provide an evaluation report on the Freshet Rate in five years time. As discussed in paragraphs 8 to 10 of this Reply Argument, above, if the BCUC considers that BC Hydro should be required to re-evaluate and report on RS 1892 sooner than the proposed ten-year time frame, BC Hydro would suggest that a reasonable alternative would be for BC Hydro to re-evaluate the Freshet Rate and report on the on-going appropriateness of the rate following BC Hydro's second IRP.

3 Conclusion

32. BC Hydro continues to support the conclusions set forth in its Final Argument.

ALL OF WHICH IS RESPECTFULLY SUBMITTED APRIL 15, 2020



Per: _____

Ian Webb

Counsel for BC Hydro

Lawson Lundell LLP