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<b>BCH TRANSMISSION SERVICE MARKET REFERENCE- PRICED RATES</b>	<b>EXHIBIT A2-1</b>
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**To:** British Columbia Hydro and Power Authority  
Registered Interveners

**Re: British Columbia Hydro and Power Authority – Transmission Service Market Reference-Priced Rates  
Application – Project 1599053 – Staff Information Request No. 2**

Further to the British Columbia Utilities Commission (BCUC) Order G-49-20, in accordance with the regulatory timetable established in that order, BCUC staff is submitting the attached questions that would have been asked at the Streamlined Review Process.

Sincerely,

*Original signed by:*

Patrick Wruck  
Commission Secretary

LC/jo  
Enclosure

British Columbia Hydro and Power Authority  
Transmission Service Market Reference-Priced Rates Application

**BCUC staff Information Request No. 2  
in accordance with Order G-49-20**

BCUC Pre-filed Questions from Exhibit A-5	Staff Questions
<b>Enrollment and need</b>	
<p>1. To date, how many customers have given notice to BC Hydro to enroll for the 2020 freshet period? How does the 2020 freshet period enrollment compare to the average historical participation?</p>	<p>A. Is there a need for the Freshet Rate on a permanent basis? Given that the energy adders during the Freshet months (May, June, and July billing periods) are the same for the Freshet Rate and the Incremental Energy Rate (IER) Pilot, how many new and existing customers are going migrate away from the Freshet Rate?</p> <p>B. Has BC Hydro considered extending the Freshet Rate pilot to additional year(s) to monitor customer behaviour between the Freshet Rate and IER offerings?</p>
<b>Curtailment criteria; economic impact; risk to ratepayers</b>	
<p>2. In response to BCUC information request (IR) 1.9.4, BC Hydro provides its rationale for not curtailing customers for economic reasons. How will all other BC Hydro ratepayers be protected in the absence of curtailment for economic reasons? What are the benefits (and to whom would they accrue) if the curtailment criteria include economic reasons?</p> <p>3. In response to BCUC IR 1.8.2, BC Hydro states that the 2019 year of the Freshet Rate Pilot had periods where the system was under marginal resource Condition 1: Minimum Generation with Exports approximately █ per cent of the time, Condition 2: Minimum Generation with Imports approximately █ per cent of the time, and Condition 3: Higher Basin Generation on the Margin approximately █ per cent of the time. What was the split of such conditions during Years 1 to 3 of the Freshet Rate Pilot?</p>	<p>C. BC Hydro states that condition 1: Forced export will always have a net benefit to ratepayer. Condition 2: Market import will have a ratepayer loss unless the Mid-C price is sufficiently negative. Condition 3, where system storage is the marginal resource, ‘Revenue gain (loss)’ is a <b>notional</b> term as it is based on the difference between the RS 1892 Rate and the system marginal value at the time of incremental load. (Emphasis added, Exhibit B-4, BC Hydro response to BCUC IR 1.8.5)</p> <p>i. Would market imports likely incur economic losses? How likely do Mid-C prices become negative?</p> <p>ii. Should the evaluation of ratepayer economic impact consider the <b>notional</b> Condition 3? Should condition 1 and 2 which appear to be actual economic gains/losses be given a different weight than condition 3 which appears to be an opportunity cost calculation?</p> <p>D. One of BC Hydro’s objectives for the Freshet Rate in the 2015 Rate Design Application was to assist in the management of the freshet oversupply in the BC Hydro system by providing the option to: (i) increase the ability to import cheap electricity during low priced periods; (ii) reduce the volume</p>

	<p>of surplus energy being forced to export markets; and/or (iii) reduce spill at BC Hydro facilities. (Exhibit B-1, PDF 235-236/512)</p> <p>i. How does each of the three conditions (i.e. forced export, market import, and system storage as the marginal source) contribute or reflect the three options stated above to manage the freshet oversupply in BC Hydro’s system?</p> <p>E. Please provide BC Hydro’s views if the BCUC’s approval of the Freshet Rate application is condition upon BC Hydro including economic reasons in its curtailment criteria.</p>
<p><b>Adjustments and options to offer Freshet Rate</b></p>	
<p>4. Recognizing the potential economic losses incurred by energy imports, in what ways can BC Hydro manage the potential economic losses in each year’s freshet period (e.g. reduce energy imports to serve non-firm Freshet Rate, increase the energy adder, utilize BC Hydro generation resources, and/or other methods)?</p> <p>5. In Year 4 (2019) of the Freshet Rate Pilot, BC Hydro initially decided to not offer the Freshet Rate because of low water conditions and the possibility of high Mid-C prices. In response to stakeholder request, BC Hydro nonetheless proceeded to offer the Freshet Rate. Year 4 resulted in a loss to BC Hydro. When BC Hydro predicts that there is a high probability of economic losses due to unfavorable conditions, should BC Hydro be precluded from offering the Freshet Rate or not? Why or why not?</p>	<p>F. In 2019, when was BC Hydro able to make the assessment that low water conditions and high Mid-C prices would lead to an economic loss during the 2019 Freshet Period? Specify the month or date.</p> <p>G. What is BC Hydro’s most current assessment of the water conditions and Mid-C prices for the 2020 Freshet Period and how that impacts the gains or losses during the 2020 Freshet season under Rate Schedule (RS) 1892, if it were to be offered?</p> <p>H. Based on BC Hydro’s most current assessment of the water conditions and Mid-C prices for the 2020 Freshet period, if BC Hydro can predict that adverse conditions exist that may lead to losses, what are some loss mitigation strategies that BC Hydro is able to adopt?</p> <p>I. Given BC Hydro’s ability to predict economic gains/loss ahead of a Freshet Rate period, discuss the feasibility and pros/cons if BC Hydro is required to submit an annual plan prior to each Freshet Rate period for BCUC review and/or approval.</p>
<p><b>Water conditions and sensitivity analysis</b></p>	
<p>7. Please model and discuss scenarios of energy availability in the following scenarios: (i) favourable, (ii) normal, and (iii) unfavourable water conditions. For each of these scenarios, what is the likely financial impact on other ratepayers that flows from BC Hydro continuing to offer the Freshet Rate in each scenario?</p>	<p>J. Why did BC Hydro not conduct a sensitivity analysis (Exhibit B-4, BC Hydro response to BCUC IR 1.7.2)? What is the time and effort involved assuming the analysis is feasible? How is a sensitivity analysis different than BC Hydro’s economic loss prediction analysis for the 2019 Freshet Rate?</p>

	<p>K. With respect to the Enbridge incident (Exhibit B-4, BC Hydro response to BCUC IR 1.8.3), BC Hydro submits that it cannot quantify how much the event had an impact on the water conditions. How did BC Hydro identify that Enbridge is a contributing factor that impacted water conditions, and what was the test?</p> <p>L. With respect to precipitation (Exhibit B-4, BC Hydro response to BCUC IR 1.7.4), have the 2019 actuals and forecast 2020 snowfall data been factored into the Freshet Rate analysis?</p> <p>M. BC Hydro has net energy imports for F2019 and forecast F2020 (Exhibit B-4, BC Hydro response to BCUC IR 1.10.1 &amp; 1.10.3). BC's Energy Objectives includes BC being a net exporter of electricity from clean or renewable resources. How does the Freshet Rate program impact BC's energy objectives to be a net exporter?</p>
<p><b>Year 4 evaluation and future evaluation</b></p>	
<p>6. In response to BCSEA IR 1.5.2, BC Hydro submits that the subtraction of implementation costs, and verified load shifting costs, from the estimated revenue gains for the entire period of the Freshet Rate Pilot would have provided a more accurate indication of net financial impact. However, BC Hydro does not have verified estimates of load shifting for Year 3 and 4 of the pilot and has not provided actual implementation costs for Year 4. To the extent possible, what is BC Hydro's best estimate of load shifting and implementation costs, and what is the corresponding financial impact for each of Years 3 and 4?</p> <p>8. In response to MoveUP IR 1.3.1, BC Hydro explains its proposal to not review the Freshet Rate earlier than ten years. How, if at all, will BC Hydro, BCUC and ratepayers ensure that the Freshet Rate remains economical for all ratepayers during this ten year period?</p>	<p>N. During the ten year period, does BC Hydro do any internal monitoring of the Freshet Rate economic impacts? Does BC Hydro have any thresholds to modify or terminate the rate schedule?</p> <p>O. What is the regulatory burden to conduct evaluation reports every year? Are there any benefits for BC Hydro to make such evaluations annually, or under a less frequent time interval (e.g. once every two years)?</p> <p>P. Please provide BC Hydro's views if the BCUC's approval of the Freshet Rate application is condition upon BC Hydro submitting annual evaluation reports.</p>