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June 19, 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
Responses to BCUC and Interveners Information Request No. 3**

BC Hydro writes in compliance with BCUC Order No. G-136-20 to provide its responses to Round 3 information requests as follows:

Exhibit B-11	Responses to BCUC IRs (Public Version)
Exhibit B-11-1	Responses to BCUC IRs (Confidential Version)
Exhibit B-12	Responses to Interveners IRs

BC Hydro is filing one IR response confidentially with the BCUC. BC Hydro confirms that an explanation for the request for confidential treatment is provided in the public version of the IR response. BC Hydro seeks this confidential treatment pursuant to section 42 of the *Administrative Tribunals Act* and Part 4 of the Commission's Rules of Practice and Procedure.

June 19, 2020
Ms. Marija Tresoglavic
Acting Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Transmission Service Market Reference-Priced Rates Application – Incremental
Energy Rate Pilot
Responses to BCUC and Interveners Information Request No. 3

For further information, please contact Anthea Jubb at 604-623-3545 or by email at bchydroregulatorygroup@bchydro.com.

Yours sincerely,



Fred James
Chief Regulatory Officer

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Enclosure

British Columbia Utilities Commission Information Request No. 3.1.1 Dated: May 19, 2020 British Columbia Hydro & Power Authority Response issued: June 19, 2020	Page 1 of 1
British Columbia Hydro & Power Authority Transmission Service Market Reference-Priced Rates Application - Incremental Energy Rate Pilot	Exhibit: B-11

**1.0 Reference: INCREMENTAL ENERGY RATE PILOT PROPOSAL
Exhibit B-6, BCUC Pre-filed SRP Question 7.0
Water Conditions and Sensitivity Analysis**

In response to British Columbia Utilities Commission (BCUC) pre-filed Streamlined Review Process (SRP) question 7.0, British Columbia Hydro and Power Authority (BC Hydro) provided the financial impact of the Freshet Rate on ratepayers under (i) favourable, (ii) normal, and (iii) unfavourable water conditions. BC Hydro states:

- (i) Favourable water conditions are when annual inflows are at least 10 per cent higher (wetter) than average;
- (ii) Normal water conditions are when annual inflows are within +/-10 per cent of average; and
- (iii) Unfavourable water conditions are when annual inflows are at least 10 per cent lower (drier) than average.

Using the same modeling and assumptions as performed for BC Hydro's response to BCUC IR 1.7.1, over the 46 years of historical weather sequences used in the modeling, the expected annual financial impact on ratepayers is:

- (i) Favourable: \$547,000;
- (ii) Normal: \$34,000; and
- (iii) Unfavourable: -\$374,000.

- 3.1.1 Please provide a similar financial impact analysis of the Incremental Energy Rate (IER) to BC Hydro ratepayers under the same favorable, normal, and unfavorable water conditions used in BC Hydro's response to BCUC Pre-filed SRP question 7.0.

RESPONSE:

Using the same modeling and assumptions as performed for BC Hydro's response to BCUC IR 1.7.1, over the 46 years of historical weather sequences used in the modeling, the expected annual financial impact of the RS 1893 pilot on ratepayers by water condition is:

- (i) Favourable: \$1,952,000;**
- (ii) Normal: \$957,000; and**
- (iii) Unfavourable: -\$373,000.**

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**1.0 Reference: INCREMENTAL ENERGY RATE PILOT PROPOSAL
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Using the same modeling and assumptions as performed for BC Hydro's response to BCUC IR 1.7.1, over the 46 years of historical weather sequences used in the modeling, the expected annual financial impact on ratepayers is:

- (i) Favourable: \$547,000;
- (ii) Normal: \$34,000; and
- (iii) Unfavourable: -\$374,000.

3.1.2 Please discuss the likelihood of the water inflows in a given year being more than 10% above average or more than 10% below average.

RESPONSE:

The confidential version of the response contains information about BC Hydro's inflow information. Publication of the information could enable third-parties to model BC Hydro's system to predict BC Hydro's import and export requirements. The confidential version of this response is being made available to the BCUC only.



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**2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, p. 67; Appendix C, p. 7; Exhibit B-4,
BCUC IR 1.25.0 Series
RS 1893 Baseline Determination**

In response to BCUC IR 1.25.1, BC Hydro states:

Fiscal 2019 consumption is the proposed default period for RS 1893 baseline determination. The conditions that might result in an alternate period being used for RS 1893 baseline determination, or for making RS 1893 baseline adjustments, are described in Special Condition Nos. 7, 8 and 9 of RS 1893.

On page 7 of Appendix C of the Transmission Service Market Reference-Priced Rates

Application (Application), Special Condition 7 of RS 1893, states:

If BC Hydro and the Customer agree that the LLH [Low Load Hours] and HLH [High Load Hours] Baselines and/or Monthly Reference Demand as defined above are not representative of the Customer's normal expected Rate Schedule 1823 or Rate Schedule 1828 Electricity usage, as applicable, during each Billing Period, and the parties agree to alternative LLH and HLH Baselines and/or Monthly Reference Demand, BC Hydro will file the agreed-to LLH and HLH Baselines and/or Monthly Reference Demand with the British Columbia Utilities Commission (BCUC) for approval. In cases where the Customer and BC Hydro cannot reach agreement, the BCUC will determine the final LLH and HLH Baselines and Monthly Reference Demand.

Further on footnote 40 on page 67 of the Application, BC Hydro states:

Fiscal 2019 is the most recent fiscal year for which customers have a final Energy CBL [Customer Baseline] that has been filed with and approved by the BCUC. This will ensure alignment of RS 1893 energy baselines with the customer's annual Energy CBL determined in accordance with TS 74.

3.2.1 BC Hydro sets the RS 1823 Energy CBLs every year which are approved by the BCUC. Please explain why Fiscal 2019 consumption is the proposed default period for determining HLH, LLH Baselines and Monthly Reference Demand for customers that participate in the IER Pilot in any year of the proposed pilot period.

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RESPONSE:

Fiscal 2019 is the proposed default period for determining RS 1893 baselines because it is: (i) the most recent fiscal year prior to implementation of the Incremental Energy Rate Pilot; and (ii) the most recent fiscal year for which customers have a final Energy CBL that has been filed with and approved by the BCUC.

Since RS 1893 requires monthly baselines for each of the 12 calendar months of the year, a full 365 days of historical electricity consumption is required for baseline determination. BC Hydro considers that the most recent fiscal year immediately prior to implementation of the Incremental Energy Rate Pilot (in this case, Fiscal 2019) will provide the most current view of normal operations at the Customer site.

Further, it is both reasonable and efficient to use a fiscal year for which customers have a Final Energy CBL that has been approved by the BCUC. This approach leverages the annual review process that BC Hydro and the Customer have already completed to determine the Final Energy CBL for each site, including engineering verification of the electricity consumption impacts of eligible adjustment events in accordance with Tariff Supplement No. 74.

This rigorous annual review process provides BC Hydro with detailed information regarding the recent operation of the Customer site. Using this information, BC Hydro and the Customer can make an informed assessment as to whether the determination of RS 1893 baselines using Fiscal 2019 electricity usage will be representative of the Customer's normal expected RS 1823 electricity consumption in accordance with Special Condition 8 of RS 1893.¹

Subsequently, to the extent that adjustments are required to ensure that the RS 1893 baselines reflect normal expected operations, BC Hydro and the Customer can reference the specific events already reviewed and verified under Tariff Supplement No. 74. This approach ensures the alignment of RS 1893 energy baselines with the customer's most recent Final Energy CBL - which the parties have already agreed to and which the BCUC has already approved.

As described at page 62 of the Application, BC Hydro considers this approach to provide both BC Hydro and the Customer with certainty and transparency regarding normal operations at the Customer site, including the verified impact of events that have increased or decreased historical energy consumption.

¹ BC Hydro notes that the reference in the preamble should refer to Special Condition 8 of RS 1893, as amended by BC Hydro's Errata No. 2 filing to the Application dated December 5, 2019.

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Further on footnote 40 on page 67 of the Application, BC Hydro states:

Fiscal 2019 is the most recent fiscal year for which customers have a final Energy CBL [Customer Baseline] that has been filed with and approved by the BCUC. This will ensure alignment of RS 1893 energy baselines with the customer's annual Energy CBL determined in accordance with TS 74.

3.2.1 BC Hydro sets the RS 1823 Energy CBLs every year which are approved by the BCUC. Please explain why Fiscal 2019 consumption is the proposed default period for determining HLH, LLH Baselines and Monthly Reference Demand for customers that participate in the IER Pilot in any year of the proposed pilot period.

3.2.1.1 As an alternative, please discuss the pros and cons of using the most current fiscal year's information to set RS 1893 baselines for IER customers after Fiscal Year 2020.

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RESPONSE:

Please refer to BC Hydro's response to BCUC IR 3.2.1.

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Further on footnote 40 on page 67 of the Application, BC Hydro states:

Fiscal 2019 is the most recent fiscal year for which customers have a final Energy CBL [Customer Baseline] that has been filed with and approved by the BCUC. This will ensure alignment of RS 1893 energy baselines with the customer's annual Energy CBL determined in accordance with TS 74.

3.2.1 BC Hydro sets the RS 1823 Energy CBLs every year which are approved by the BCUC. Please explain why Fiscal 2019 consumption is the proposed default period for determining HLH, LLH Baselines and Monthly Reference Demand for customers that participate in the IER Pilot in any year of the proposed pilot period.

3.2.1.2 As an alternative, please discuss the pros and cons of using an average of previous fiscal years' information (e.g. most recent 3 years) in setting RS 1893 baselines for IER customers.

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RESPONSE:

In general, BC Hydro considers F2019 or the most recent year prior to implementation of, and/or participation in, the Incremental Energy Rate Pilot to provide the most relevant starting point for determination of RS 1893 baselines. Please also refer to BC Hydro’s responses to BCUC IR 3.2.1.

Some of the challenges related to use of an average of electricity consumption from previous fiscal years (e.g., most recent three years) are described below:

- **A three-year averaging approach will typically result in a baseline that is too high or too low. This is because the very nature of an averaging approach is to “smooth out” some of the dynamic changes in recent electricity usage which may be relevant to retain to ensure that the customer sees an appropriate monthly price signal to increase load;**
- **Customers often make operating and product mix changes to respond to evolving markets such that operations and load from three years prior is not representative of current normal operations;**
- **Use of a three-year average does not replace the need to consider baseline adjustments for unusual and/or non-recurring events. Rather than adjusting for events in a single year, to reach agreement on RS 1893 baselines that reflect normal annual operations, eligible adjustment events would need to be reviewed and verified over the entire three year period; and**
- **There is an existing annual review process in place for RS 1823 customers that provides information regarding annual changes in load and operations at each Customer site for the most recent fiscal year. This review includes detailed submissions and engineering verification of the electricity consumption impacts of adjustment events. It is efficient to leverage this existing annual review process.**

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Further on footnote 40 on page 67 of the Application, BC Hydro states:

Fiscal 2019 is the most recent fiscal year for which customers have a final Energy CBL [Customer Baseline] that has been filed with and approved by the BCUC. This will ensure alignment of RS 1893 energy baselines with the customer's annual Energy CBL determined in accordance with TS 74.

3.2.2 Please provide examples of conditions where customer LLH and HLH Baselines and/or Monthly Reference Demand would reset as per Special Condition 7 of RS 1893.

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RESPONSE:

BC Hydro understands the preamble to refer to Special Condition 8 of RS 1893, as corrected by BC Hydro in its Errata No. 2 application to the BCUC on December 5, 2019. However, BC Hydro does not understand the reference to RS 1893 baseline “reset”. There is no such language in Special Condition 8 of RS 1893.

To the extent that the question asks about the circumstances where alternate baselines might be determined in accordance with Special Condition 8, please refer to BC Hydro’s response to BCUC IRs 3.2.1 and 3.2.1.1.

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Further on footnote 40 on page 67 of the Application, BC Hydro states:

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3.2.3 Please discuss or otherwise explain whether BC Hydro would adjust customer LLH and HLH Baselines and/or Monthly Reference Demand set under RS 1893 for natural load growth.

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RESPONSE:

The purpose of Special Conditions 8 and 9 of RS 1893 is to ensure that BC Hydro and the Customer agree that the RS 1893 Baselines are representative of the Customer's normal expected electricity usage.

Further, in accordance with Special Condition 3(c) of RS 1893, the Customer must provide notice to BC Hydro by March 1st of each year that includes: (i) an estimate of the amount of incremental energy that the Customer expects to take under RS 1893 during each Billing Period; and (ii) a description of the operational and/or production changes, as applicable, that the Customer plans to make at its plant to take advantage of the pilot.

If the Customer advises, or BC Hydro determines, that the Customer has experienced natural load growth, the Customer's RS 1893 baselines may not be representative of normal expected electricity usage. In this circumstance, alternative baselines and/or baseline adjustments would be determined in accordance with Special Conditions 8 and/or 9 and filed with the BCUC for approval.

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3.2.3 Please discuss or otherwise explain whether BC Hydro would adjust customer LLH and HLH Baselines and/or Monthly Reference Demand set under RS 1893 for natural load growth.

3.2.3.1 If so, please specify the applicable section(s) of RS 1893.

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RESPONSE:

Please refer to BC Hydro's response to BCUC IR 3.2.3.

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3.2.3 Please discuss or otherwise explain whether BC Hydro would adjust customer LLH and HLH Baselines and/or Monthly Reference Demand set under RS 1893 for natural load growth.

3.2.3.2 If not, please explain why customer LLH and HLH Baselines and/or Monthly Reference Demand set under RS 1893 should not be adjusted for natural load growth.

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RESPONSE:

Please refer to BC Hydro's response to BCUC IR 3.2.3.

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3.2.4 Please provide a description or definition for load shifting for the IER. Explain how BC Hydro would identify and adjust for load shifting impacts during the IER pilot.

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RESPONSE:

Please refer to the description of load shifting provided in section 3.1.7 of Appendix D to the Application and which is summarized below.

A load shift is deemed to occur when the customer changes the timing of electricity consumption to buy more during one month and less in another month, for no net change in annual energy consumption. BC Hydro has expanded this definition of load shifting to include energy that it considers the Customer would have purchased anyway in the absence of service under RS 1893.

Consistent with this definition, BC Hydro identified four categories of load shifting in the Application: (1) Customer-reported load shift; (2) Unexplained load variance; (3) Natural load growth; and (4) RS1880 replacement service. The CBL annual review process is typically where BC Hydro will have the opportunity to assess and verify the electricity consumption impact(s) of changes in the customer's site operations that may be due to load shifting. BC Hydro will also survey each RS1893 participant Customer to identify the specific actions taken to increase load in the prior Billing Year.

BC Hydro considers that applying the following Special Conditions of RS 1893 to each unique customer circumstance will minimize load shifting impacts by ensuring that each customer's RS 1893 baselines are set and adjusted appropriately for the forthcoming Billing Year:

- Per Special Condition 3 of RS 1893, the customer must provide an estimate to BC Hydro of the amount of incremental energy that it expects to take, together with a description of the operational and/or production changes that the customer plans to make at its plant to increase load;
- Per Special Condition 6 of RS 1893, for a customer with an Electricity Purchase Agreement (EPA), no RS 1893 energy will be determined in any Billing Period if the energy is directly associated with an event of generator turndown for which the Customer is entitled to financial payment from BC Hydro under the EPA;
- Per Special Conditions 8 and/or 9 of RS 1893, where BC Hydro and the Customer agree that the Customer's existing RS 1893 baselines do not represent normal expected operations, alternative and/or adjusted baselines will be determined and filed with the BCUC for approval;
- Per Special Condition 9 of RS 1893, BC Hydro will file with the BCUC any baseline adjustments that BC Hydro has determined are consistent with the principles and criteria set out in Tariff Supplement No. 74;
- Per Special Condition 11 of RS 1893, if the Customer's highest kVA demand in HLH of a Billing Period is greater than 2.0 times the Monthly Reference

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Demand applicable to that Billing Period, the RS 1893 baselines will be automatically adjusted;

- **Per Special Condition 13 of RS 1893, for a customer with self-generation, RS 1893 service will be automatically cancelled for the remainder of the Billing Year if a customer requests RS 1880 service during any Billing Period; and**
- **The risk of RS 1823 Energy CBL annual reset under Tariff Supplement No. 74 acts as an additional safeguard to any customer who might seek to shift a significant portion of load from RS 1823 to RS 1893. Please refer to BC Hydro's response to BCOAPO IR 1.39.2 for a detailed description of this CBL reset risk.**

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**3.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, Section 5.5, pp. 72–81
Economic Justification and Ratepayer Impacts**

On page 73 of the Application, BC Hydro states:

BC Hydro used its forecast of system marginal value¹ from the energy study models in estimating the ratepayer impact of serving incremental customer load under the proposed Incremental Energy Rate Pilot for the pilot period.

On page 74 of the Application, BC Hydro states:

The estimated ratepayer impact of the Incremental Energy Rate Pilot is based on the forecast system marginal values and the following factors:

- Customer-specific forecasts of incremental RS 1893 load;
- Customer-specific assumptions of ‘strike price’ (i.e., the estimated price at which the customer will stop taking incremental load and/or turndown to their baseline);
- Forecast daily Mid-C market prices in HLH and LLH; and
- An energy charge adder in \$/MWh.

Further on page 79 of the Application, BC Hydro states:

Based on the assumptions provided, for energy charge adder Option 2A:

- Expected incremental RS 1893 energy sales are 266 GWh per year and expected net revenue to BC Hydro is approximately \$1.3 million per year;
- At the 10th percentile, there is a 10 per cent chance that BC Hydro would see a forecast annual net revenue loss of approximately (\$0.3 million) or more for approximately 243 GWh of incremental energy sales; and
- At the 90th percentile, there is a 10 per cent chance that BC Hydro would see a forecast annual net revenue gain of approximately \$2.9 million or more for approximately 282 GWh of incremental energy sales.

On May 11, 2020 BC Hydro released a report titled “Demand dilemma: How BC Hydro is responding to declining load and operational challenges resulting

¹ Based on BC Hydro’s October 2018 Energy Study which is used as the basis for the Cost of Energy forecast in the Fiscal 2020 to Fiscal 2021 RRA.

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from COVID-19² (Demand Dilemma Report). On page 2, of this report BC Hydro states:

Major industry—forestry, mining and oil and gas—accounts for approximately 30% of BC Hydro’s overall electricity load and energy demand from these customers has decreased by 7% since mid-March. Forestry is one of the most impacted industries due to temporary partial and full closures of mills. Energy demand from this sector could drop by up to 28%, while mining may see a decline of 22%. The oil and gas industry is expected to be less impacted with an expected drop of up to 7%. These forecasts are dependent on the global response to COVID-19, as much of the load from BC Hydro’s largest customers is highly correlated with economic activity outside of BC, particularly in US and Asian markets.

- 3.3.1 For each of the factors used to estimate ratepayer impact as described on pages 73 and 74 of the Application (i.e. system marginal value, customer-specific forecast of incremental RS 1893 load, Mid-C market prices, customer strike price, and energy adder), please explain how they can be affected by the COVID-19 pandemic, if at all.

RESPONSE:

We are still in the midst of the COVID-19 pandemic and the resulting consequences. At this time, BC Hydro is unable to assess the impact of the COVID-19 pandemic on system marginal value or forecast Mid-C market prices in HLH and LLH.

COVID-19 has no impact on the Energy Charge Adder because the Adder is a fixed charge of \$3/MWh in freshet months and \$7/MWh in non-freshet months.

Regarding customer-specific forecasts of incremental load, BC Hydro considers its original forecast of customer participation and annual incremental load in the Application to be reasonable. While some customers may be unable to increase energy use in the short term, due to COVID-19 impacts, other customers that enrolled in the RS 1893 pilot prior to the COVID-19 pandemic have affirmed their capability to do so. At the time of this filing, no customer has since requested that their RS 1893 service be cancelled in accordance with Special Condition 12 of RS 1893. Accordingly, BC Hydro considers its estimate of incremental RS 1893 load to remain reasonable.

2

https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/news-and-features/BC%20Hydro%20Report_COVID19_DemandDilemma.pdf

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Regarding the customer-specific assumptions of strike price, BC Hydro used \$55/MWh in its modeling and continues to view this as being an appropriate average price to represent the average economic ‘tipping point’ for the customer’s decision to increase load.

The COVID-19 pandemic is unprecedented, and there is uncertainty with respect to how customers, electricity markets and the economy will respond over the period of the RS 1893 Pilot. BC Hydro considers that the RS 1893 Pilot will provide an important option for customers who can increase energy use to do so.

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**3.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
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Further on page 79 of the Application, BC Hydro states:

Based on the assumptions provided, for energy charge adder Option 2A:

- Expected incremental RS 1893 energy sales are 266 GWh per year and expected net revenue to BC Hydro is approximately \$1.3 million per year;
- At the 10th percentile, there is a 10 per cent chance that BC Hydro would see a forecast annual net revenue loss of approximately (\$0.3 million) or more for approximately 243 GWh of incremental energy sales; and
- At the 90th percentile, there is a 10 per cent chance that BC Hydro would see a forecast annual net revenue gain of approximately \$2.9 million or more for approximately 282 GWh of incremental energy sales.

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3.3.1 For each of the factors used to estimate ratepayer impact as described on pages 73 and 74 of the Application (i.e. system marginal value, customer-specific forecast of incremental RS 1893 load, Mid-C market prices, customer strike price, and energy adder), please explain how they can be affected by the COVID-19 pandemic, if at all.

3.3.1.1 All else equal, please provide a range for favourable, normal, and unfavourable scenarios impacted by the COVID-19 pandemic.

RESPONSE:

Please refer to BC Hydro’s response to BCUC IR 3.3.1.

2

https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/news-and-features/BC%20Hydro%20Report_COVID19_DemandDilemma.pdf

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**3.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, Section 5.5, pp. 72–81
Economic Justification and Ratepayer Impacts**

In Section 5.5.5 of the Application on pages 80–81, BC Hydro provides a discussion of risks of the proposed IER.

3.3.2 Please highlight or discuss any changes to risks provided in Section 5.5.5 due to the COVID-19 pandemic.

RESPONSE:

Section 5.5.5 of the Application discusses risk to ratepayers associated with: low inflow years; limited market energy availability; and high load periods.

BC Hydro does not expect that the COVID-19 pandemic will impact the probability of low inflow years. We do not know whether the COVID-19 pandemic will impact market energy availability. We expect that the COVID-19 pandemic will reduce the probability of high load periods.

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3.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, Section 5.5, pp. 72–81
Economic Justification and Ratepayer Impacts

In Section 5.5.5 of the Application on pages 80–81, BC Hydro provides a discussion of risks of the proposed IER.

3.3.3 Based on BC Hydro’s most current experience and challenges highlighted in the Demand Dilemma Report, to the extent possible, please provide the updated expected increment RS 1893 energy sales and expected net revenue for under each energy charge adder as provided in Table 13 on page 79 of the Application.

RESPONSE:

BC Hydro is unable to update expected RS 1893 energy sales and expected net revenue for each energy charge adder as provided in Table 13 on page 79 of the Application based on the challenges highlighted in the Demand Dilemma Report.

The COVID-19 pandemic is new to us, and there is insufficient data to analyze how the challenges highlighted in the Demand Dilemma Report may impact ratepayer economics of RS 1893.

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3.3.3 Based on BC Hydro’s most current experience and challenges highlighted in the Demand Dilemma Report, to the extent possible, please provide the updated expected increment RS 1893 energy sales and expected net revenue for under each energy charge adder as provided in Table 13 on page 79 of the Application.

3.3.3.1 Please also include favourable, normal, and unfavourable scenarios for expected increment RS 1893 energy sales and expected net revenue for the proposed energy charge adder based on BC Hydro’s most current estimate.

RESPONSE:

BC Hydro understands this question to be referring to the Summary of Expected Net Revenue by Adder Option provided in Table 13 on page 79 of the Application.

The information provided in Table 13 on page 79 of the Application remains BC Hydro’s most current estimate of expected net revenue each year under RS 1893, based on the original assumptions provided. The information is still valid as we haven’t updated the model and the load estimates are still reasonable.

BC Hydro has not updated forward-looking data inputs in the model for the Pilot based on the load and operational challenges resulting from COVID-19 as highlighted in the Demand Dilemma Report.

Although BC Hydro has seen a short-term decline in industrial demand due to the COVID-19 pandemic, BC Hydro still considers that certain industrial customers may remain able to increase load under RS 1893 over the pilot period. Additionally, because we are still in the midst of the pandemic and the resulting consequences, any attempt to forecast the impacts on BC Hydro’s operations will be an uncertain exercise and will not add value at this time. As such, BC Hydro considers that the original assumptions regarding incremental customer load remain reasonable.

As described at page 75 of the Application, the model results remain sensitive to BC Hydro’s forecast of system marginal values, forecast Mid-C market prices, customer-specific incremental electricity consumption and monthly energy charge adder pricing. Please also refer to BC Hydro’s response to BCOAPO IR 3.3.1.

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4.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 77; Exhibit B-4, BCUC IR 1.21.1; Exhibit B-6,
Response to BCUC Pre-filed Question 6.0; Order G-300-19
Annual Sales Revenues

Table 9 on page 77 of the Application shows expected incremental load net revenue using a \$7/MWh adder in non-freshet months to equal \$1.32 million, as shown in the first line of the following table below.

**Table 9 Option 2A – Flat \$7/MWh Adder in
Non-freshet months**

RESULTS (all values on a per year basis):		
Expected Incremental Load Net Revenue	1315	kCAD
10th Percentile Net Revenue	-257	kCAD
50th Percentile Net Revenue	1308	kCAD
90th Percentile Net Revenue	2881	kCAD
Expected Incremental Load	266	GWh
10th Percentile Incremental Load	243	GWh
50th Percentile Incremental Load	272	GWh
90th Percentile Incremental Load	282	GWh

In Exhibit B-4, BC Hydro's response to BCUC IR 1.21.1 states:

In all cases under Condition No. 3, the daily revenue over-recovery or under-recovery for net daily RS 1893 energy sales arises from the difference between the Mid-C index price (plus adder) and the system marginal value on the given day.

In Exhibit B-6, BC Hydro's response to BCUC Pre-filed Question 6.0 provided a below revised table to reflect implementation costs for each year of the freshet rate, as well as impacts of load shifting and natural load growth.

3.4.1 Please clarify whether the estimated \$1.32 million of expected net revenue per year considers the effects of load shifting, natural load growth, and implementation costs.

RESPONSE:

The estimates in Table 9 of the Application have not been adjusted for implementation costs and do not consider the prospective effects of load shifting or natural load growth on incremental load or net revenue.

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In Exhibit B-6, BC Hydro's response to BCUC Pre-filed Question 6.0 provided a below revised table to reflect implementation costs for each year of the freshet rate, as well as impacts of load shifting and natural load growth.

3.4.2 Please complete the following table to show the breakdown to support the \$1.32 million expected net revenue per year. Provide any adjustments to the table as necessary.

Component	Dollars (in millions)
RS 1893 Expected Incremental Net Revenue	\$1.32
Less load Shifting Impact	
Less load Growth Impact	
Less implementation Costs	
Less other (please specify)	
Adjusted Ratepayer Benefit	

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RESPONSE:

The table has been updated to incorporate BC Hydro's estimate of annual implementation costs for each year of the Incremental Energy Rate Pilot, as provided in BC Hydro's response to BCUC IR 1.3.2.

Component	Year 1 (F2021)	Year 2 (F2022)	Year 3 (F2023)	Year 4 (F2024)
RS 1893 Expected Incremental Net Revenue	\$ 1,320,000	\$ 1,320,000	\$ 1,320,000	\$ 1,320,000
Less Estimated Implementation Costs	\$ 186,000	\$ 15,000	\$ 15,000	\$ 65,000
Less Load Shifting Impact				
Less Natural Load Growth Impact				
Less Other (please specify)				
Adjusted Ratepayer Benefit	\$1,134,000	\$1,305,000	\$1,305,000	\$1,255,000

At present, BC Hydro has insufficient data and information to prepare a customer-specific forecast of load shifting and natural load growth impacts.

As described in section 5.7 of the Application, an assessment of load-shifting is part of BC Hydro's proposed evaluation criteria for the RS 1893 Pilot. BC Hydro intends to apply the analysis methodology developed for the Freshet Rate Pilot and which is described in section 3.1.7 of Appendix D to the Application. This detailed analysis methodology applies on a retrospective basis using actual customer data.

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 Exhibit B-1, pp. 77; Exhibit B-4, BCUC IR 1.21.1; Exhibit B-6,
 Response to BCUC Pre-filed Question 6.0; Order G-300-19
 Annual Sales Revenues**

Order G-300-19, dated November 26, 2019, approved the IER on an interim and non-refundable basis, effective January 1, 2020.

3.4.3 Please provide the incremental energy sales volumes and revenues based on year-to-date results of the IER, up to and including April 30, 2020, if available. Are the actual year-to-date results projected to meet BC Hydro's expected incremental net revenue of \$1.32 million per year?

RESPONSE:

The table below provides actual RS 1893 energy sales volumes and revenues for thirteen RS 1893 participant customer sites for the period January 1, 2020 to March 31, 2020 and seventeen RS 1893 participant customer sites for the period April 1, 2020 to April 30, 2020. BC Hydro notes that the Energy Charge Adder was \$7/MWh during each of these four months.

RS 1893 Energy Sales for Billing Periods of January - April 2020					
Billing Month	Total Billed RS 1893 Energy (kWh)	Total RS 1893 Energy Charges (\$)	Total Energy Charge Adder Revenue (\$)	Total RS 1893 Energy Charges (\$)	
Jan-20	25,048,562	\$ 749,327	\$ 175,340	\$ 924,667	
Feb-20	14,280,455	\$ 320,168	\$ 99,963	\$ 420,131	
Mar-20	11,108,105	\$ 362,808	\$ 77,757	\$ 440,565	
Apr-20	40,316,464	\$ 1,046,083	\$ 282,215	\$ 1,328,298	
	90,753,586	\$ 2,478,386	\$ 635,275	\$ 3,113,661	

Total RS 1893 energy sales for the first four months of the Pilot were 90.7 GWh. BC Hydro considers that it would be premature to make an assessment of projected annual customer RS 1893 energy sales using only four months of data and given prospective COVID-19 impacts which have not yet been quantified.

Further, the determination of expected net incremental revenue would require BC Hydro to perform an after-the-fact analysis to determine the system condition deemed to apply to RS 1893 energy sales for each day of this initial period. BC Hydro has not completed this analysis and considers that it would be premature to make an assessment of projected annual ratepayer impact using only four months of data.

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**5.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 84–85; Exhibit B-4, BCUC IR 1.28.0 series
IER evaluation**

The IER pilot started on January 1, 2020 on an interim basis and will end on March 31, 2024. On pages 84 and 85 of the Application, BC Hydro outlines its proposal to evaluate the IER pilot with a list of 13 reporting items from (a) to (m). BC Hydro states that it “anticipates that the evaluation report will help guide whether any changes to the Incremental Energy Rate Pilot will need to be made and whether it should be made a permanent rate.”

In response to BCUC IR 1.28.0 series, BC Hydro proposes not to file annual reports and views that annual reporting is resource intensive and has low regulatory efficiency. BC Hydro proposes a filing date of December 13, 2023 for the evaluation report.

3.5.1 Please indicate the earliest date that BC Hydro can provide an evaluation report that covers the results for the initial period (January 1, 2020 to March 31, 2021) and three complete fiscal years (fiscal 2021, fiscal 2022 and fiscal 2023), and if necessary, an application to make any changes to the IER.

RESPONSE:

The proposed evaluation filing date of December 13, 2023 is the earliest we could file an evaluation that includes RS 1893 performance results for the period from the commencement of RS 1893 (January 1, 2020) to the end of BC Hydro’s fiscal 2023 year (March 31, 2023). If appropriate, based on the results of the evaluation, this filing may include an application regarding any changes to RS 1893.

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3.5.1.1 Referencing the list of reporting items from (a) to (m), what information will be available, partially available, or unavailable if BC Hydro is directed to file an evaluation report, and if necessary, an application to make any changes to the IER, by June 30, 2023.

RESPONSE:

An evaluation filed by June 30, 2023 could cover the same reporting items from (a) to (m) shown on pages 84 and 85 of the Application, however the analysis would not include results for BC Hydro’s fiscal 2023, which ends March 31, 2023. Rather, the analysis may cover the period only to the end of BC Hydro’s fiscal 2022.

Following the end of any fiscal year, several months are required for electricity consumption and billing data on that fiscal year to become available and undergo the required analysis.

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In response to BCUC IR 1.28.0 series, BC Hydro proposes not to file annual reports and views that annual reporting is resource intensive and has low regulatory efficiency. BC Hydro proposes a filing date of December 13, 2023 for the evaluation report.

3.5.1 Please indicate the earliest date that BC Hydro can provide an evaluation report that covers the results for the initial period (January 1, 2020 to March 31, 2021) and three complete fiscal years (fiscal 2021, fiscal 2022 and fiscal 2023), and if necessary, an application to make any changes to the IER.

3.5.1.2 Please indicate the earliest date that BC Hydro can provide an evaluation report that covers up to and including fiscal 2022.

RESPONSE:

BC Hydro could hypothetically file an evaluation in December 2022 that includes results for fiscal 2022, however our view is that a single evaluation, filed in December 2023, is more appropriate.

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In response to BCUC IR 1.28.0 series, BC Hydro proposes not to file annual reports and views that annual reporting is resource intensive and has low regulatory efficiency. BC Hydro proposes a filing date of December 13, 2023 for the evaluation report.

3.5.2 In the hypothetical scenario that the BCUC approves the IER under the condition that evaluation reports on the IER must be filed annually, please discuss whether BC Hydro would maintain its proposal to offer the IER.

RESPONSE:

BC Hydro does not support a requirement to file annual RS 1893 evaluation reports.

As described in BC Hydro’s response to BCUC Staff IR 2.0, conducting annual evaluation reports results in additional regulatory burden and costs that must be recovered from all ratepayers.

As discussed in our response to BCUC IR 1.28.3.2, BC Hydro proposes a filing date for the evaluation report of December 13, 2023. This evaluation is expected to include information on the performance of RS 1893 over each year it is offered. Therefore, no additional information will be revealed by conducting annual evaluations.

In BC Hydro’s view, the proposed evaluation filing schedule of December 2023 is the appropriate timeline to allow for the pilot to be assessed over a range of conditions.