BC Hydro
Power smart

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July 17, 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 – Responses to BCUC Panel Information Request No. 1

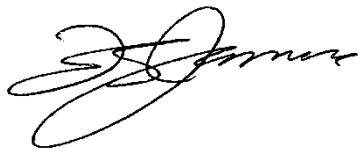
BC Hydro writes in compliance with Commission Order No. G-179-20 to provide its responses to Round 1 information requests as follows:

Exhibit B-13	Responses to Commission Panel IRs (Public Version)
Exhibit B-13-1	Responses to Commission Panel IRs (Confidential Version)

BC Hydro is filing a number of IR responses and/or attachments to responses confidentially with the Commission. BC Hydro confirms that in each instance, 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.

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

Yours sincerely,



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rz/tl
Enclosure

1.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, Application, Section 5.5, pp. 72–80,
Exhibit B-11, IR Series 3.0; Catalyst Paper Request to Reduce RS 1893 Baselines, Exhibit B-1
Economic Justification and Ratepayer Impacts

In response to British Columbia Utilities Commission (BCUC) information request (IR) 3.3.3, British Columbia Hydro and Power Authority (BC Hydro) stated:

> 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.

Further in response to BCUC IR 3.3.3.1, BC Hydro stated:

> 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.
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> 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.

On May 21, 2020, Catalyst Paper Corporation (Catalyst), filed an application with the BCUC to request significant reduction to the Rate Schedule (RS) 1893 baselines[1]. In its application Catalyst states:

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[1] https://www.bcuc.com/Documents/Proceedings/2020/DOC_58203_B-1-Catalyst-RS1893-BaselineAdjustmentRequest.pdf

COVID-19 has had a dramatic impact on the global demand for the paper grades Catalyst Paper produces at its sites at Crofton, Port Alberni and Powell River. This has resulted in extensive production curtailments at these sites and an accompanying reduction in load as evidenced by the reduced purchases from BC Hydro in the April 2020 period……

……We believe that an interim request will provide enough time to realize market opportunities and limit any *potential* negative impact to other rate payers while we collect data to evaluate the net impact of the reduced baselines to inform any longer-term changes.

1.1.1 Based on Catalyst's application to reduce baselines, please provide the updated expected incremental RS 1893 energy sales and expected net revenue under each energy charge adder as provided in Table 13 on page 79 of BC Hydro's Transmission Service Market Reference-Priced Rates application (Application).

RESPONSE:

BC Hydro is unable to update the model to adjust for any change in RS 1893 energy sales (up or down) that might arise from Catalyst's application to reduce baselines for two reasons:

1. **The model is based on total estimated RS 1893 load for the class and does not drill down to the specific estimates for individual customer sites such as Catalyst Crofton and Port Alberni; and**
2. **Catalyst has not provided an estimate to BC Hydro of any prospective change in forecast RS 1893 energy purchases (up or down) if its requested baseline adjustments are approved by the BCUC on a final basis.**

In the absence of this information, BC Hydro has no basis upon which the model assumptions might be updated to show an increase or decrease in expected incremental load, as explained in more detail below:

Per (1) above, the forecast of expected incremental RS 1893 energy sales and net revenue reflects BC Hydro's expectation of annual participation and uptake across the entire class of eligible RS 1823 and RS 1828 customers. There is no specific forecast of RS 1893 energy purchases for the two Catalyst sites (or any customer site), even though BC Hydro does discuss with individual customers about their prospective ability to take service under RS 1893. Rather, the model assumes that a total of 33 MW per hour of total incremental load will be purchased by participant customers - in aggregate - when the daily Mid-C energy price plus the energy charge adder is less than $55/MWh. The scenarios presented in

Table 13 of the Application show the results of this annual analysis for three different energy charge adders using forecast data.

Per (2) above, from the information provided by Catalyst, BC Hydro understands that the Crofton and Port Alberni sites experienced production curtailments due to COVID-19 commencing in March 2020. In response to this load reduction, Catalyst requested alternate RS 1893 baselines for the three Billing Periods of June through August. BC Hydro notes that the baselines requested by Catalyst are lower than the baselines previously approved by the BCUC for these sites for these three Billing Periods.

BC Hydro understands the intent of Catalyst's requested baseline reduction is to provide the Crofton and Port Alberni mills with a prospective option to retain staff and restart operations for specific short-run production orders that might be economic using RS 1893 pricing.

As such, directionally, if the baselines requested by Catalyst are approved on a final basis and in a timely manner, BC Hydro considers that Catalyst might have an opportunity to take orders in July that could support the restart of operations in August (if RS 1893 energy prices are economic).

Should this occur, and if Catalyst were to purchase substantially higher volumes of RS 1893 energy in August, this would lead to a higher expected incremental load for the year which, in turn, and holding all else equal, would lead to higher expected net revenue across all three adder scenarios shown in Table 13.

1.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
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> 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.

On May 21, 2020, Catalyst Paper Corporation (Catalyst), filed an application with the BCUC to request significant reduction to the Rate Schedule (RS) 1893 baselines[1]. In its application Catalyst states:

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……We believe that an interim request will provide enough time to realize market opportunities and limit any *potential* negative impact to other rate payers while we collect data to evaluate the net impact of the reduced baselines to inform any longer-term changes.

1.1.2 Please elaborate and explain what the potential positive (favourable) or negative (unfavorable) impacts on other BC Hydro ratepayers could be due to the change in RS 1893 baselines requested by Catalyst. To the extent possible, please quantify.

RESPONSE:

This response contains commercially sensitive information that is specific to Catalyst and has thus been redacted. The redacted information is being provided to the BCUC only.

By Order G-129-20A dated June 10, 2020, the BCUC approved Catalyst's requested RS 1893 baselines for its Crofton and Port Alberni sites for the three Billing Periods of June, July and August 2020 on an interim and refundable basis.

The mere adjustment of the RS 1893 baselines for those two sites, by itself, is not sufficient to make a determination of positive or negative ratepayer impacts. Rather, such a determination requires consideration of a number of complex and dynamic factors, such as:

(i) Whether Catalyst purchases any RS 1893 energy relative to the adjusted baselines that have interim approval;

(ii) Whether the BCUC approves the interim baselines on a final and permanent basis without any changes;

(iii) Whether the volume of RS 1893 energy purchased would be incremental relative to what Catalyst would have otherwise purchased from BC Hydro absent the requested RS 1893 baseline adjustments;

(iv) The HLH and/or LLH price of RS 1893 energy on any day where HLH and/or LLH Net Incremental Energy was purchased;

(v) The daily system condition deemed to apply to any day where HLH and/or LLH Net Incremental Energy was purchased;

(vi) The difference in energy pricing between RS 1823 and RS 1893 for any volume of RS 1893 energy deemed to be not incremental; and

(vii) The prospective impact on Catalyst's F2021 annual RS 1823 energy purchases relative to its annual Energy CBL for the purposes of the annual Energy CBL reset determination under Tariff Supplement 74.

Notwithstanding these complexities, BC Hydro offers the following assessment in an effort to frame the prospective ratepayer impact if the BCUC were to approve Catalyst's requested baselines on a permanent basis:

The ratepayer impact would be positive where:

- **Catalyst has any RS 1893 energy purchase in a Billing Period;**
- **The RS 1893 energy is considered to be truly incremental (i.e., would not otherwise have occurred in the absence of the baseline adjustment and the adjusted baseline is verified to be appropriate); and**
- **BC Hydro recovers its marginal cost of serving the RS 1893 energy based on the daily system condition deemed to apply to any day where HLH and/or LLH Net Incremental Energy was purchased.**

The ratepayer impact would be negative where:

- **Catalyst has an RS 1893 energy purchase in a Billing Period, but BC Hydro does not recover its marginal cost of serving the RS 1893 energy based on the daily system condition deemed to apply to any day where HLH and/or LLH Net Incremental Energy was purchased; or**
- **The RS 1893 energy: (a) is not considered to be truly incremental (i.e., would have occurred anyway); and (b) the otherwise applicable RS 1823 energy price is higher than the RS 1893 energy price for the specified volume of energy that is deemed to not be incremental.**

BC Hydro also notes the following complicating factors:

- **The regulatory proceeding established by the BCUC to review Catalyst's application is ongoing and is unlikely to be concluded prior to the end of August 2020, which is the final month of the three month period to which the adjusted RS 1893 baselines would apply;**
- **Catalyst advised in its June 12, 2020 submission to the BCUC that the approval of adjusted RS 1893 baselines on an interim and refundable basis is**

unlikely to provide Catalyst with sufficient electricity pricing certainty to take orders and make production commitments that will enable the retention of staff and restart of load under RS 1893;

- **Catalyst's adjusted baselines reflect "*… the change in load in April 2020 relative to the adjusted load for the 12 months ending February 1, 2020*" and imbed a number of adjustments that have not yet been identified by Catalyst or verified by BC Hydro;**
- **Catalyst's request for adjusted RS 1893 baselines is based on a forward looking approach which has not been tested. Baseline adjustments are typically determined on a retrospective basis using historical data and pursuant to a BC Hydro engineering review to verify the electricity consumption impact of a defined event(s). Tariff Supplement 74 does not contemplate making baseline adjustments on a prospective basis using forecast data.**
- **Special Condition 8 of RS 1893 provides a means to address a situation where the requested baselines may not accurately reflect the impacts of COVID-19 and may not represent Catalyst's normal expected RS 1823 electricity usage during each of the June - August Billing Periods;**
- **In accordance with Special Condition 9 of RS 1893, BC Hydro is not certain how adjustments to Catalyst's RS 1893 baselines that might be approved by the BCUC (such as for production curtailments) could be harmonized in a manner "*… consistent with the principles and criteria set out in BC Hydro's Tariff Supplement 74*" (such as if production is re-started);**
- **As at the date of this response, only the June 2020 Billing Period has been completed. For the June 2020 Billing Period, Catalyst purchased a total of [redacted] GWh of RS 1893 energy at Crofton and [redacted] RS 1893 energy at Port Alberni;**
- **BC Hydro is unable to speculate as to how Catalyst might choose to operate its Crofton and Port Alberni sites for the July and August Billing Periods and whether there will be any RS 1893 energy purchases in these months;**
- **Per Special Condition 3c(ii) of RS 1893, the customers' notice of intent to participate is required to include the operational and/ or production changes the customer plans to make to take advantage of the pilot.** [redacted]

- **Special Condition 11 of RS 1893 includes a 2.0x cap on the volume of any incremental take of electricity during a Billing Period under RS 1893. BC Hydro expects that Special Condition 11 would be triggered if Catalyst were to re-start shutdown operations at its Crofton mill.** [redacted] **This would automatically trigger Special Condition 11 and result in 50 per cent of electricity consumption being billed under RS 1893 and 50 per cent being billed under RS 1823.**

- **RS 1893 uses monthly settlement to determine the volume of HLH and LLH Net Incremental Energy over an entire Billing Period. Please refer to page 70 of the Application for a detailed summary of the monthly settlement process, which relies on hourly data. This may impact the determination of RS 1893 energy if Catalyst were to run its operations only sporadically during a Billing Period, such as during a single week, which could result in higher than hourly baselines in that week, but lower in other weeks.**

1.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
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On May 21, 2020, Catalyst Paper Corporation (Catalyst), filed an application with the BCUC to request significant reduction to the Rate Schedule (RS) 1893 baselines[1]. In its application Catalyst states:

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……We believe that an interim request will provide enough time to realize market opportunities and limit any *potential* negative impact to other rate payers while we collect data to evaluate the net impact of the reduced baselines to inform any longer-term changes.

1.1.3 Please discuss the longer-term impacts of the reduced baselines requested by Catalyst due to COVID-19 on the performance of the Incremental Energy Rate (IER) Pilot and other BC Hydro ratepayers.

RESPONSE:

BC Hydro does not consider that the reduced baselines requested by Catalyst are likely to have any longer-term impacts on the performance of the IER Pilot or to other BC Hydro ratepayers for the following reasons:

- **The reduced baselines requested by Catalyst are for the three Billing Periods of June, July and August only (i.e., this represents a short-term adjustment);**
- **BC Hydro understands that the RS 1893 baselines requested by Catalyst remain subject to a regulatory proceeding and may, or may not, be approved by the BCUC on a final basis in time for Catalyst to have certainty as to their applicability; and**
- **BC Hydro understands that Catalyst may, or may not, be able to manage operations at its Crofton and Port Alberni pulp mills so as to purchase incremental energy under RS 1893 during these three Billing Periods, recognizing that electricity pricing is only one component of their operating decision.**

As described in BC Hydro's response to BCUC Panel IR 1.1.1, BC Hydro is unable to forecast the impact of the Catalyst baseline adjustment on RS 1893 performance. However, directionally, BC Hydro does not consider it likely that any potential change in Catalyst's prospective RS 1893 energy purchases for only two sites and for only three months out of a 51 month Pilot could be expected to have a longer-term impact on the performance of the IER Pilot or to ratepayers.

Please also refer to BC Hydro's response to BCUC Panel IR 1.1.2 for a discussion of the complex factors that influence ratepayer impacts (if any).

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……We believe that an interim request will provide enough time to realize market opportunities and limit any *potential* negative impact to other rate payers while we collect data to evaluate the net impact of the reduced baselines to inform any longer-term changes.

1.1.4 Please confirm or discuss whether BC Hydro has had any discussions with or has received notice from other customers registered to take service under RS 1893 to reduce baselines due to COVID-19.

RESPONSE:

BC Hydro confirms that, other than Catalyst for its Port Alberni and Crofton sites, no other customers have provided notice to BC Hydro to request a reduction in their RS 1893 baselines due to COVID-19.

From recent discussions that BC Hydro has had with customers registered to take service under RS 1893, the general theme is that customers will seek to use incremental energy under RS 1893 to the extent that they are able to do so.

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1.1.4 Please confirm or discuss whether BC Hydro has had any discussions with or has received notice from other customers registered to take service under RS 1893 to reduce baselines due to COVID-19.

1.1.4.1 If yes, please provide details of the same and discuss its impact on the IER pilot.

RESPONSE:

Please refer to BC Hydro's response to BCUC Panel IR 1.1.4.

2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

On pages 74 to 75 of the Application, BC Hydro states:

> BC Hydro's financial modeling is designed to estimate forecast incremental energy volumes and net revenue for the Incremental Energy Rate Pilot. The model incorporates forward-looking data inputs for the three-year period of fiscal 2020 to fiscal 2022. The 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.

Table 9 on page 77 of the Application shows the expected incremental load net revenue using the BC Hydro proposed $7/MWh adder in non-freshet months to equal $1.32 million per year, with expected incremental load of 266 GWh per year.

In response to BCUC IR 3.4.2, BC Hydro provided an updated table to incorporate its estimate of annual implementation costs for each year of the IER Pilot as follows:

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

In response to BCUC IR 3.4.2, BC Hydro submitted that it has insufficient data and information to prepare a customer-specific forecast of load shifting and natural growth impacts. BC Hydro explained that an assessment of load-shifting is applied on a retrospective basis using actual customer data, which will be included in a future evaluation.

In response to BCUC IR 3.4.3, BC Hydro provided the 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. 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**

In response to BCUC IR 3.4.3 to explain the table above, BC Hydro stated:

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.

1.2.1 Please confirm that the last column of the Table provided in response to BCUC IR 3.4.3 titled “Total RS 1893 Energy Charges ($)” ($3.11 million) is the sum of columns “Total RS 1893 Energy Charge ($)” and “Total Energy Charge Adder Revenue ($)”.

RESPONSE:

Confirmed.

2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

BC Hydro's financial model for the RS 1893 expected incremental net revenue, excluding implementation costs, load shifting, and natural growth impacts, is estimated to be $1.32 million per year based on incremental energy sales of 266 GWh per year. BC Hydro's total RS 1893 energy charges revenue from January 1, 2020 to April 30, 2020, including the Total Energy Charge Adder Revenue, is $3.11 million, based on 90.7 GWh in total billed RS 1893 energy.

1.2.2 Other than the time period, please confirm, or otherwise explain, that the difference between BC Hydro's financial modelling of the RS 1893 expected incremental net revenue and the total energy charges revenue is the lack of analysis for system marginal values.

RESPONSE:

Not confirmed.

To calculate expected incremental net revenue from service under RS 1893, BC Hydro's financial model uses a forecast of: (i) daily incremental customer load; (ii) daily Mid-C energy prices in HLH and LLH; and (iii) marginal resource price.

The marginal resource price is used for the determination of incremental net revenue. It is equal to the system marginal value for System Condition 3.

Total revenue from service under RS 1893 for the period from January 1, 2020 to April 30, 2020 represents actual RS 1893 energy purchases from participant customers.

The RS 1893 revenue is the product of each customer's actual HLH and LLH Net Incremental Energy on a specific day and the actual Mid-C price on that day, plus the energy charge adder of $7/MWh.

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Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

BC Hydro's financial model for the RS 1893 expected incremental net revenue, excluding implementation costs, load shifting, and natural growth impacts, is estimated to be $1.32 million per year based on incremental energy sales of 266 GWh per year. BC Hydro's total RS 1893 energy charges revenue from January 1, 2020 to April 30, 2020, including the Total Energy Charge Adder Revenue, is $3.11 million, based on 90.7 GWh in total billed RS 1893 energy.

1.2.2 Other than the time period, please confirm, or otherwise explain, that the difference between BC Hydro's financial modelling of the RS 1893 expected incremental net revenue and the total energy charges revenue is the lack of analysis for system marginal values.

1.2.2.1 If confirmed, please prorate the system marginal values analysis within BC Hydro's financial model for the RS 1893 expected incremental net revenue to enable a comparable assessment between BC Hydro's year-to-date results versus its estimate of $1.32 million per year.

RESPONSE:

The table below provides forecast information specific to the January 1, 2020 to April 30, 2020 period that has been extracted from the financial model used to estimate the expected annual net revenue of $1.32 million.

The table includes a summary of Total Expected RS 1893 Energy Charges (i.e., the Mid-C market price, plus the energy charge adder), which was not previously included in the model results presented in the Application.

- **For the four month period of January 1, 2020 to April 30, 2020, the model calculates expected net revenue of $381,000 for 90 GWh of expected incremental load, with $3.35 million of total estimated RS 1893 energy charges; and**
- **This compares with 91 GWh of actual incremental load for the same period, with $3.11 million of total actual RS 1893 energy charges.**

Table: January 1, 2020 – April 30, 2020 Forecast:

Expected Incremental Load Net Revenue	**381**	**kCAD**
10th Percentile Net Revenue	**-297**	**kCAD**
50th Percentile Net Revenue	**489**	**kCAD**
90th Percentile Net Revenue	**1082**	**kCAD**
Expected Incremental Load	**90**	**GWh**
10th Percentile Incremental Load	**80**	**GWh**
50th Percentile Incremental Load	**92**	**GWh**
90th Percentile Incremental Load	**96**	**GWh**
Total Expected RS 1893 Energy Charges	**3351**	**kCAD**
10th Percentile Net Revenue	**2853**	**kCAD**
50th Percentile Net Revenue	**3417**	**kCAD**
90th Percentile Net Revenue	**3690**	**kCAD**

2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

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1.2.3 Please provide the underlying total RS 1893 energy charges revenue per year in BC Hydro's financial model to arrive at the $1.32 million per year RS 1893 expected incremental net revenue. Please provide a working excel spreadsheet to show the breakdown.

RESPONSE:

The requested financial model is provided in the attachment to this response. The financial model is filed confidentially and made available to the BCUC only as it 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.

In developing the response to BCUC Panel Information Request 1.2.3, BC Hydro discovered an inadvertent error in Table 9 on page 77 of the Application. The original data was based on an average of 45 years of historical weather sequences. The corrected data is based on an average of 46 years of historical weather sequences as we have indicated in the Application. The corrections are shown in the table below. The error has an insignificant impact on ratepayers.

As requested, BC Hydro has also included "Total Expected RS 1893 Energy Charges", which was not originally provided in the Application.

RESULTS (all values on a per year basis):

Expected Incremental Load Net Revenue	**~~1315~~1308**	**kCAD**
10th Percentile Net Revenue	**~~-257~~ -237**	**kCAD**
50th Percentile Net Revenue	**~~1308~~ 1288**	**kCAD**
90th Percentile Net Revenue	**~~2881~~ 2867**	**kCAD**
Expected Incremental Load	**~~266~~ 267**	**GWh**
10th Percentile Incremental Load	**243**	**GWh**
50th Percentile Incremental Load	**272**	**GWh**
90th Percentile Incremental Load	**~~282~~ 281**	**GWh**
Total Expected RS 1893 Energy Charges	**9128**	**kCAD**
10th Percentile Net Revenue	**8083**	**kCAD**
50th Percentile Net Revenue	**9195**	**kCAD**
90th Percentile Net Revenue	**10198**	**kCAD**

CONFIDENTIAL ATTACHMENT

FILED WITH BCUC ONLY

2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

BC Hydro's financial model for the RS 1893 expected incremental net revenue, excluding implementation costs, load shifting, and natural growth impacts, is estimated to be $1.32 million per year based on incremental energy sales of 266 GWh per year. BC Hydro's total RS 1893 energy charges revenue from January 1, 2020 to April 30, 2020, including the Total Energy Charge Adder Revenue, is $3.11 million, based on 90.7 GWh in total billed RS 1893 energy.

1.2.3 Please provide the underlying total RS 1893 energy charges revenue per year in BC Hydro's financial model to arrive at the $1.32 million per year RS 1893 expected incremental net revenue. Please provide a working excel spreadsheet to show the breakdown.

1.2.3.1 If the underlying model is not available, please explain in detail why it is not available.

RESPONSE:

Please refer to BC Hydro's response to BCUC Panel IR 1.2.3.

2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

BC Hydro's financial model for the RS 1893 expected incremental net revenue, excluding implementation costs, load shifting, and natural growth impacts, is estimated to be $1.32 million per year based on incremental energy sales of 266 GWh per year. BC Hydro's total RS 1893 energy charges revenue from January 1, 2020 to April 30, 2020, including the Total Energy Charge Adder Revenue, is $3.11 million, based on 90.7 GWh in total billed RS 1893 energy.

1.2.4 With respect to assessment and reporting, please update the implementation cost line item in the table provided in response to BCUC IR 3.4.2 if the BCUC determines that annual reporting of the IER pilot is required.

RESPONSE:

As described in BC Hydro's response to BCUC IR 1.3.2, we estimate that the incremental cost of completing a single evaluation of RS 1893 in Year four of the Pilot (F24) would be $30,000. If this effort were to be repeated annually in each of Year one (F20/F21), Year two (F22), and Year three (F23), BC Hydro estimates that this would add $90,000 to the implementation costs, as shown in the table below.

The additional estimated costs are associated with additional consulting and contract services required to complete the report and required analysis for each year. The estimate does not include any costs associated with: (i) a potential regulatory proceeding regarding the evaluation report(s); (ii) answering information requests; (iii) funding participant cost awards; and/or (iv) diversion of existing staff resources from planned work.

For a discussion of these estimated costs, please refer to BC Hydro's response to BCUC Staff IR 2.O. Although BCUC Staff IR 2.O was addressing a question about annual evaluation of RS 1892, similar potential cost implications and considerations arise for annual evaluation of RS 1893.

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	$ 216,000	$ 45,000	$ 45,000	$ 65,000
Less Load Shifting Impact				
Less Natural Load Growth Impact				
Less Other (please specify)				
Adjusted Ratepayer Benefit	$1,104,000	$1,275,000	$1,275,000	$1,255,000

2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

BC Hydro's financial model for the RS 1893 expected incremental net revenue, excluding implementation costs, load shifting, and natural growth impacts, is estimated to be $1.32 million per year based on incremental energy sales of 266 GWh per year. BC Hydro's total RS 1893 energy charges revenue from January 1, 2020 to April 30, 2020, including the Total Energy Charge Adder Revenue, is $3.11 million, based on 90.7 GWh in total billed RS 1893 energy.

1.2.4 With respect to assessment and reporting, please update the implementation cost line item in the table provided in response to BCUC IR 3.4.2 if the BCUC determines that annual reporting of the IER pilot is required.

1.2.4.1 In similar format, please revise the table if the BCUC determines that an interim report (e.g. after two years) to assess the IER pilot is required.

RESPONSE:

Completing an evaluation after two years, i.e., in F2022, would add $30,000 to the incremental implementation costs, given the same considerations and costs as described in BC Hydro's response to BCUC Panel IR 1.2.4.

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	$ 45,000	$ 15,000	$ 65,000
Less Load Shifting Impact				
Less Natural Load Growth Impact				
Less Other (please specify)				
Adjusted Ratepayer Benefit	$1,134,000	$1,275,000	$1,305,000	$1,255,000

2.0 Reference: INCREMENTAL ENERGY RATE PROPOSAL
Exhibit B-1, pp. 74–77; Exhibit B-11, BCUC IR 3.4.2 and 3.4.3
Ratepayer impacts and reporting requirements

BC Hydro's financial model for the RS 1893 expected incremental net revenue, excluding implementation costs, load shifting, and natural growth impacts, is estimated to be $1.32 million per year based on incremental energy sales of 266 GWh per year. BC Hydro's total RS 1893 energy charges revenue from January 1, 2020 to April 30, 2020, including the Total Energy Charge Adder Revenue, is $3.11 million, based on 90.7 GWh in total billed RS 1893 energy.

1.2.4 With respect to assessment and reporting, please update the implementation cost line item in the table provided in response to BCUC IR 3.4.2 if the BCUC determines that annual reporting of the IER pilot is required.

1.2.4.2 If the BCUC requires BC Hydro to file interim reporting on the IER pilot, please propose a filing timeline and content of such reporting.

RESPONSE:

If the BCUC directs BC Hydro to file an interim report on RS 1893, we suggest that it be filed in December of 2021. This would allow for the analysis of a full fiscal year (F2021). Analysis of a full fiscal year would ensure alignment of the analysis with the most recent fiscal year of RS 1823 energy purchases for which the customer has a Final Energy CBL determined in accordance with TS 74 and approved by the BCUC. It would also enable consideration of the effects of seasonality on market prices and participation.

If the BCUC directs BC Hydro to file an interim report on RS 1893 in December 2021, we anticipate the content of the report will focus on: customer participation; energy sales and revenue; participant benefits and satisfaction; implementation; interruption of service; assessment of participation in RS 1892 and RS 1893; and load shifting. This content aligns to items b, c, e, f, g, h, i, j, k and l in section 5.7 of the application. A report covering this content filed in December 2021 would provide early information on the performance of RS 1893.

Given the limited data and experience with RS 1893 that would be available to inform a December 2021 filing, BC Hydro does not propose that an interim filing include analysis of ratepayer economic impacts, the sufficiency of the proposed energy charge adder, or an assessment of whether BC Hydro should continue to offer multiple optional non-firm rates or a single non-firm service to RS 1823 and RS 1828 customers. This content aligns to items a, d and m in section 5.7 of the

application. This content is intended to be addressed in the final evaluation report to be filed December 2023.

BC Hydro expects that the incremental cost of completing the interim report described above may be lower than $30,000 referenced in our response to BCUC Panel IR 1.2.4.