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June 29, 2020

Ms. Marija Tresoglavic  
Acting Commission Secretary and Manager  
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British Columbia Utilities Commission  
Suite 410, 900 Howe Street  
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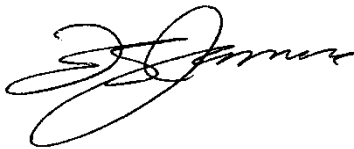
Dear Ms. Tresoglavic:

**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 - Final Argument**

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BC Hydro writes in compliance with BCUC Order No. G-136-20 to provide its Final Argument.

Yours sincerely,



Fred James  
Chief Regulatory Officer

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Enclosure

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

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**Counsel's Written Submission**

**British Columbia Hydro and Power Authority**

**June 29, 2020**

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## 1 Introduction

1. The British Columbia Hydro and Power Authority (**BC Hydro**), on October 31, 2019, pursuant to sections 58 to 60 of the *Utilities Commission Act*, filed an application (**Application**) to the British Columbia Utilities Commission (**BCUC**) requesting approval of:
  - Rate Schedule 1892 – Transmission Service – Freshet Energy (**Freshet Energy Rate**); and
  - Rate Schedule 1893 – Transmission Service – Incremental Energy (**Incremental Energy Rate**).
2. The Freshet Energy Rate is an optional rate for non-firm, interruptible service, offered to transmission service customers taking service under Rate Schedule 1823 - Transmission Service - Stepped Rate (**Rate Schedule 1823**) or Rate Schedule 1828 - Transmission Service – Biomass Energy Program (**Rate Schedule 1828**) for their electricity usage above their baseline amounts in the applicable rate schedule. The service is available during the freshet period (May, June and July) of each year and is provided to the extent that BC Hydro has sufficient energy and capacity available. By Order No. G-104-20, the BCUC approved the Freshet Energy Rate on a permanent basis.
3. Similarly, the Incremental Energy Rate is also an optional rate for non-firm, interruptible service available to eligible transmission service customers for electricity usage above their Rate Schedule 1823 or Rate Schedule 1828 baseline amounts. Service under the Incremental Energy Rate is available on a year-round basis and is provided to the extent that BC Hydro has sufficient energy and capacity available. The Incremental Energy Rate is proposed to be offered on a pilot basis for approximately four years. Pursuant to BCUC Order No. G-300-19, the BCUC approved the Incremental Energy Rate effective January 1, 2020 on an interim and non-refundable basis. A transmission

service customer can choose to take service under either the Freshet Energy Rate or the Incremental Energy Rate.<sup>1</sup> For the current fiscal year (April 1, 2020 to March 31, 2021), there are 17 customer sites enrolled for service under the Incremental Energy Rate.<sup>2</sup>

4. This Final Submission addresses BC Hydro's request for approval of the Incremental Energy Rate on a pilot basis until March 31, 2024. BC Hydro submits that the Incremental Energy Rate should be approved as a pilot as it is expected to:
  - Provide opportunities for transmission service customers to operate their idle and/or flexible production capacity that in the absence of the Incremental Energy Rate would be underutilized; and
  - Encourage incremental domestic energy use, which provides economic benefits to all BC Hydro ratepayers.

## **2 The Incremental Energy Rate Pilot**

### **2.1 Service Under the Incremental Energy Rate is a 51 Month Pilot**

5. The Incremental Energy Rate is designed and offered mainly in response to customers' feedback and government policy to provide innovative rate options for transmission service customers that will take advantage of those customers' operational flexibility while growing domestic electricity demand:<sup>3</sup>
  - Since 2013, transmission service customers have requested flexible rate options that better match their unique operating needs and electricity service requirements. Customers and the Association of Major Power Customers (**AMPC**) have requested rate design alternatives that incent

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<sup>1</sup> Exhibit B-4, CEABC IR 1.8.1.

<sup>2</sup> Exhibit B-12, CEABC IR 3.20.1.

<sup>3</sup> Exhibit B-1, Application, page 7.

efficient use, and have identified the annual availability of non-firm service with market-referenced pricing and monthly settlement as a key objective of the rate design;<sup>4</sup>

- Based on a survey conducted in October 2018, 61 per cent of survey respondents supported a non-firm service option for incremental energy use on a year-round basis;<sup>5</sup> and
- The Government of B.C., in its Comprehensive Review of BC Hydro: Phase 1 Final Report (February 2019), commented on the option to offer to current industrial customers year-round access to real time, market-based pricing for incremental energy purchases as a means to grow domestic electricity demand.<sup>6</sup>

6. In section 1.1.3 of the Application, BC Hydro outlined seven reasons for offering the Incremental Energy Rate; and in sections 3.4 and 3.5, BC Hydro provided details of its consultative engagements and strong customer and industry support for the new rate.
7. Although BC Hydro and customers have experience with the use of market-referenced energy pricing to facilitate the use of incremental energy and capacity, a year-round, non-firm, interruptible service with market-referenced energy pricing for incremental energy usage will be new to both BC Hydro and transmission service customers. Accordingly, BC Hydro proposes to offer service under the new Incremental Energy Rate on a pilot basis for a total of 51 months beginning January 1, 2020 and ending March 31, 2024. This essentially covers four full BC Hydro fiscal years (fiscal 2021, fiscal 2022, fiscal 2023 and fiscal 2024) (**Pilot**).<sup>7</sup> In BC Hydro's experience, a pilot with such duration will

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<sup>4</sup> Exhibit B-1, Application, page 1.

<sup>5</sup> Exhibit B-1, Application, page 30.

<sup>6</sup> Exhibit B-1, Application, page 5.

<sup>7</sup> Exhibit B-1, Application, pages 6 to 8.

generally provide an appropriate timeline for the collection and analysis of data on a range of issues and conditions, resulting in meaningful information on how the rate has performed.<sup>8</sup>

8. Furthermore, the Pilot:

- will allow an opportunity to understand a variety of circumstances during the four-year period that will lead to economic gains or losses, which, in turn, will help to inform a decision on whether the Incremental Energy Rate should be offered beyond the Pilot and, if so, on what terms;<sup>9</sup>
- is expected to provide benefits to both participating customers and non-participating ratepayers as discussed further in section [3](#) of this submission;
- facilitates an assessment of whether BC Hydro should continue to offer multiple optional non-firm rates for Rate Schedule 1823 and Rate Schedule 1828 Customers, or move to a single non-firm service;<sup>10</sup>
- manages risk to all ratepayers by not requiring BC Hydro to undertake any system reinforcements, by using available energy and capacity from BC Hydro's system, and by covering on an expected basis, BC Hydro's marginal cost of energy while making some contribution to fixed costs;<sup>11</sup> and
- limits BC Hydro's risk exposure to the fixed duration of the Pilot, should it not perform as expected.<sup>12</sup>

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<sup>8</sup> Exhibit B-12, BCOAPO IR 3.66.1.1.

<sup>9</sup> Exhibit B-12, MOVEUP IR 3.1.1(e); refer also to Exhibit B-1, page 85.

<sup>10</sup> Exhibit B-1, page 85.

<sup>11</sup> Exhibit B-1, Application, page 2; Exhibit B-4, BCUC IR 1.9.4; refer also to Exhibit B-4, BCUC IR 1.9.1 for an explanation of "available" in the context of non-firm service.

<sup>12</sup> Exhibit B-1, Application, page 59.

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## 2.2 The Pilot Should Not Be Postponed or Suspended

9. The BCUC and interveners have inquired about the prospective impact of the COVID-19 pandemic on the design of the Incremental Energy Rate and whether implementation of the Pilot should be suspended or postponed.<sup>13</sup>
10. BC Hydro acknowledges the uncertainty regarding the impact of the COVID-19 pandemic on BC Hydro's customers, BC Hydro's operations and Mid-C market prices. We are still in the midst of the COVID-19 pandemic and the resulting economic consequences.<sup>14</sup> However, BC Hydro submits that the Pilot should continue for the following reasons:
  - The economic impact of the pandemic on service under the Incremental Energy Rate will be part of a range of conditions to be evaluated by BC Hydro for the Pilot;<sup>15</sup>
  - As noted in BC Hydro's reports, the COVID-19 pandemic has resulted in a drop in electricity demand, and correspondingly, this is expected to increase BC Hydro's annual energy surplus.<sup>16</sup> The Incremental Energy Rate encourages incremental energy sales.
  - The energy charge adder will not be affected by the COVID-19 pandemic because it is a fixed charge of \$3/MWh in freshet months and \$7/MWh in non-freshet months.<sup>17</sup> The energy charge adder is designed to be sufficient, on an expected basis, to recover BC Hydro's marginal cost of energy and make a contribution to fixed costs to minimize risk to non-participating customers.

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<sup>13</sup> E.g., Exhibit C1-3, MOVEUP IR 3.1.2.

<sup>14</sup> Exhibit B-11, BCUC IR 3.3.1.

<sup>15</sup> Exhibit B-12, MOVEUP IR 3.1.2.

<sup>16</sup> Exhibit B-12, MOVEUP IR 3.1.1.

<sup>17</sup> Exhibit B-11, BCUC IR 3.3.1.



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- The Incremental Energy Rate provides an important option for customers who are able to increase energy use. 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 Pilot prior to the COVID-19 pandemic have affirmed their capability to increase load. Additionally, since the commencement of the Incremental Energy Rate in January 2020, none of the 17 customer sites enrolled for fiscal 2021 have requested that their service under the Incremental Energy Rate be cancelled.<sup>18</sup>
  - The Pilot will last for 51 months. 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 over the Pilot period.<sup>19</sup>
  - The Incremental Energy Rate includes special conditions that provide BC Hydro and the customer with the ability to assess the impact of the COVID-19 pandemic on actual electricity usage (for instance in fiscal 2020 and fiscal 20201) and to make any necessary adjustments to electricity baselines for the Incremental Energy Rate to ensure the baselines will continue to be representative of the customer's normal expected electricity usage under Rate Schedule 1823 or Rate Schedule 1828 absent the Pilot.<sup>20</sup>

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<sup>18</sup> Exhibit B-11, BCUC IR 3.3.1.

<sup>19</sup> Exhibit B-11, BCUC IR 3.3.1, 3.3.3.1.

<sup>20</sup> Exhibit B-12, BCOAPO IR 3.63.2.

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### **3 Benefits of the Incremental Energy Rate**

11. Similar to the Freshet Energy Rate, the Incremental Energy Rate is an optional rate provided on a non-firm, interruptible basis, is available to all eligible customers taking transmission service under Rate Schedule 1823 or Rate Schedule 1828, and has market-referenced pricing for incremental energy consumption above the customer's normal firm service baseline amounts. Different from the Freshet Energy Rate, the Incremental Energy Rate is available on a year-round basis, has an energy charge adder of \$7/MWh in the non-freshet months of the year, and uses monthly baselines for energy and demand, with monthly settlement.<sup>21</sup>
12. The Incremental Energy Rate is provided in Appendix C to the Application (as revised by Exhibit B-1-2). Key elements and special conditions of the Incremental Energy Rate are explained in section 5.4 of the Application and are further augmented and clarified by BC Hydro's responses to Information Requests. The discussion below, together with evidence in the Application and responses to Information Requests, shows that, similar to the approved Freshet Energy Rate, the rate design and terms and conditions of the Incremental Energy Rate are expected to: (i) encourage customer participation and incremental energy sales, thus providing benefits to both participating and non-participating customers; (ii) allow BC Hydro to recover its marginal cost of energy for supplying incremental energy on a non-firm, interruptible basis; and (iii) appropriately minimize risks to all ratepayers.

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<sup>21</sup> Exhibit B-1, Application, page 3.

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### 3.1 The Energy Charge Adder and Price Floor Were Designed in Consultation with Customers and AMPC to Encourage Participation

13. The energy charge in the Incremental Energy Rate, like the Freshet Energy Rate, is referenced to daily Mid-C market prices in High Load Hours (**HLH**) and Low Load Hours (**LLH**), with a floor of \$0/MWh and an energy charge adder of \$3/MWh in freshet months and \$7/MWh in non-freshet months.<sup>22</sup>
14. The floor of \$0/MWh ensures that if Mid-C market prices are negative, BC Hydro will not be paying customers to take incremental energy.<sup>23</sup> The energy charge adder is intended to mitigate the risk of providing service when it might otherwise be uneconomic to all ratepayers under certain conditions. The energy charge adder, together with the price floor, helps to ensure that customers make some contribution to BC Hydro's fixed costs even in periods of low or negative market pricing.<sup>24</sup>
15. The \$3/MWh energy charge adder in the freshet months is the same as in the approved Freshet Energy Rate. For the non-freshet months, BC Hydro considered six energy charge adder alternatives (flat adder of \$6/MWh, \$7/MWh or \$8/MWh and shaped adder ranging from \$5/MWh to \$9/MWh depending on the month).<sup>25</sup> Pricing the energy charge adder higher in the non-freshet months than in freshet months is to reflect an elevated risk of not recovering all of BC Hydro's marginal costs of service. This is primarily due to the potential variability in system marginal value and market energy costs, over a 365-day period.<sup>26</sup>

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<sup>22</sup> Exhibit B-1, Application, page 63.

<sup>23</sup> Exhibit B-5, CEC IR 1.11.2.

<sup>24</sup> Exhibit B-4, BCUC IR 1.9.4; refer also to Exhibit B-1, Application, pages 45 to 46.

<sup>25</sup> Exhibit B-1, Application, pages 75 to 76.

<sup>26</sup> Exhibit B-1, Application, page 2.

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16. The \$7/MWh energy charge adder was proposed to maximize participation in the Pilot and encourage higher energy sales under the Incremental Energy Rate. Lower energy sales under the Incremental Energy Rate may mean reduced benefits to participating and non-participating customers. More specifically, the \$7/MWh energy charge adder considers:

- AMPC's energy charge adder proposal;<sup>27</sup>
- the feedback from transmission voltage service customers that a higher energy charge adder may have a material impact on their economic incentive to participate;<sup>28</sup>
- an appropriate average price (\$55/MWh) that represents the average economic "striking price" or "tipping point" for the customer's decision to increase load;<sup>29</sup> and
- an annualized net revenue difference of approximately \$0.4 million between an energy charge adder of \$6/MWh (AMPC's original proposal) and \$8/MWh (BC Hydro's original proposal) based on preliminary modeling.<sup>30</sup>

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<sup>27</sup> Exhibit B-12, CEABC IR 3.15.7, Application, pages 39 to 40 and 79 to 80.

<sup>28</sup> Exhibit B-1, Application, page 40.

<sup>29</sup> Exhibit B-4, BCUC IR 1.22.2.

<sup>30</sup> Exhibit B-1, Application, pages 39 to 40.

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### 3.2 **Baselines under the Incremental Energy Rate are Determined to Represent Normal Expected Electricity Consumption Absent the Rate**

17. The Incremental Energy Rate is developed in response to customer feedback for an annual rate option with monthly baselines and monthly settlement.<sup>31</sup>

BC Hydro has designed the rate so that the customer-specific monthly baselines will be representative of the operations of each unique customer and its expected future electricity consumption:

- The monthly Incremental Energy Rate baselines are determined on a customer-specific basis using historical annual energy consumption under Rate Schedule 1823 or Rate Schedule 1828. For each customer, there will be a total of 36 unique baselines, comprised of one unique HLH energy baseline, one unique LLH energy baseline and one unique Monthly Reference Demand for each calendar month.
- In recognition of the typical time required for a new plant start-up and commissioning to achieve normal operations, BC Hydro requires a minimum of two years of electricity consumption history for baseline determinations.
- The monthly Incremental Energy Rate baseline determinations are initially based on a customer's electricity usage in fiscal 2019 (i.e., the 12 calendar months commencing April 1, 2018 and ending March 31, 2019) or the most recent 12 months if the customer does not have fiscal 2019 electricity usage.<sup>32</sup> This approach provides the most current view of normal operations at the customer site prior to implementation of the Incremental Energy Rate, and also leverages the annual review process that BC Hydro and the Customer have already completed to determine a final Rate

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<sup>31</sup> Exhibit B-1, Application, page 7.

<sup>32</sup> Exhibit B-12, BCOAPO IR 3.63.2.

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Schedule 1823 energy Customer Baseline Load for each site, which includes engineering verification of the electricity consumption impacts of eligible adjustment events in accordance with Tariff Supplement No. 74.<sup>33</sup>

- The Incremental Energy Rate contains provisions (Special Conditions 8 and 9) to ensure that BC Hydro and the Customer agree that the Rate Schedule 1893 Baselines are representative of the Customer's normal expected electricity usage. Adjustments to a customer's LLH and HLH Baselines and/or Monthly Reference Demands can be made, for instance, to account for natural load growth,<sup>34</sup> or a large Customer-funded Demand Side Management project.<sup>35</sup> Alternative baselines and/or baseline adjustments must all be filed with the BCUC for review and approval.<sup>36</sup>
- The Incremental Energy Rate also contains a provision (Special Condition 11) that provides for automatic adjustment of the Monthly Reference Demand so that service under the Incremental Energy Rate is limited to a maximum level not to exceed two times the customer's Monthly Reference Demand. This adjustment provides an opportunity for the customer to increase load consistent with its operational needs, such as the temporary re-start of a second production line, while mitigating the risk of providing a significant volume of energy under the Incremental Energy Rate that might otherwise have been provided under Rate Schedule 1823 or Rate Schedule 1828.<sup>37</sup>

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<sup>33</sup> Exhibit B-11, BCUC IR 3.2.1.

<sup>34</sup> Exhibit B-11, BCUC IR 3.2.3.

<sup>35</sup> Exhibit B-12, BCOAPO IR 3.67.4.

<sup>36</sup> Exhibit B-11, BCUC IR 3.2.3.

<sup>37</sup> Exhibit B-12, BCOAPO IR 3.64.1.

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### 3.3 Customers Have Already Enrolled in the Pilot and Are Using the Service

18. Service under the Incremental Energy Rate is available to eligible BC Hydro transmission voltage service customers taking service under Rate Schedule 1823 or Rate Schedule 1828, and was commenced on January 1, 2020. For the period of January 1, 2020 to March 31, 2020, there were 13 customer sites participating; the number of participating sites has increased to 17 for fiscal 2021. The total energy sales under the Incremental Energy Rate for the first four months of the Pilot (January 1, 2020 to April 30, 2020) were 90.7 GWh, producing \$3.1 million in revenue.<sup>38</sup>
19. Customers can be reasonably expected to continue to take service under the Incremental Energy Rate, because:
- The Incremental Energy Rate was developed to meet customers' request for flexible rate options that better match their unique operating needs and electricity service requirements;<sup>39</sup>
  - BC Hydro has adjusted specific rate design elements to address specific concerns raised by customers during consultation, such as: (i) sending appropriate price signals to encourage incremental load; and (ii) making the rate available to all Rate Schedule 1823 and Rate Schedule 1828 customers on a non-discriminatory basis.<sup>40</sup> Refinements to the Incremental Energy Rate to address these concerns include setting the energy charge adder at \$7/MWh in non-freshet months and removing a 10 MVA minimum contract demand eligibility requirement that was initially considered; and

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<sup>38</sup> Exhibit B-11, BCUC IR 3.4.3

<sup>39</sup> Exhibit B-1, Application, page 58.

<sup>40</sup> Exhibit B-1, Application, page 36.

- The service provides opportunities for transmission voltage service customers to operate their idle and/or flexible production capacity that in the absence of the Incremental Energy Rate would be underutilized.<sup>41</sup> For instance, BC Hydro notes that some customers enrolled in the Pilot have affirmed their capability to increase energy use despite the COVID-19 pandemic.<sup>42</sup>

### **3.4 Service under the Incremental Energy Rate is Expected to Benefit all Ratepayers**

20. BC Hydro expects the Incremental Energy Rate to have a favourable rate impact to all ratepayers over the Pilot period,<sup>43</sup> with forecast revenue sufficient to recover BC Hydro's forecast marginal cost of energy for providing the service.<sup>44</sup> In section 5.5 of the Application, BC Hydro set out the ratepayer impacts in support of the Incremental Energy Rate. In summary, on a forecast average annual basis, BC Hydro expects that expected net revenue (including the adder) will be \$1.3 million before load shifting and implementation costs.
21. As discussed above, there were 13 customer sites taking service under the Incremental Energy Rate between January 1, 2020 to March 31, 2020 and 17 customer sites taking service for the annual period commencing April 1, 2020. Though not determinative of the future performance of the Incremental Energy Rate, particularly given the prospective impact from the COVID-19 pandemic yet to be assessed, a total 90.7 GWh of energy was sold and \$3.1 million of revenue generated for the initial four-month period (January 1, 2020 to April 30, 2020), as shown in the table below (reproduced from Exhibit B-11, response to BCUC IR 3.4.3):

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<sup>41</sup> Exhibit B-1, Application, page 2.

<sup>42</sup> Exhibit B-11, BCUC IR 3.3.1.

<sup>43</sup> Exhibit B-4, BCUC IR 1.16.2.

<sup>44</sup> Exhibit B-4, BCUC IR 1.21.1.



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
	<b>90,753,586</b>	<b>\$ 2,478,386</b>	<b>\$ 635,275</b>	<b>\$ 3,113,661</b>

22. As noted by BC Hydro, the ratepayer impact analysis is complex and involves the making of several key assumptions.<sup>45</sup> To estimate the ratepayer impact of serving incremental customer load under the Incremental Energy Rate for the Pilot, BC Hydro conducted an analysis, using forecast system marginal values<sup>46</sup> from the Energy Studies modeling of the operational timeframe, consistent with the ratepayer impact analysis described in the Final Evaluation Report for the Freshet Energy Rate.<sup>47</sup> BC Hydro has estimated that the average annual energy sales under the Incremental Energy Rate will be 266 GWh over the Pilot, with expected annual net revenue of \$1.3 million before load shifting and implementation costs, based on the following key assumptions:

- 46 years of historical weather sequences with the impact of natural gas price and weather on forward Mid-C market prices in HLH and LLH periods;

<sup>45</sup> BC Hydro, Final Written Argument (on Freshet Energy Rate), April 1, 2002, paragraph 22.

<sup>46</sup> The system marginal value represents the estimated marginal value of energy in the system, which is typically the expected value of generation from one of BC Hydro's large storage reservoirs. BC Hydro's analysis takes into account uncertainties in various inputs such as forecasted inflows, electricity and gas prices, loads and operational constraints. The rates have been designed to cover the marginal cost of energy and provide a contribution to fixed costs on an expected value basis (determined by positive expected net revenue in the analysis), which is determined by the probability weighted average of all values.

<sup>47</sup> Exhibit B-1, Application, page 73.

- Customer-specific forecasts of load capability under the Incremental Energy Rate, including operating factors such as economic pricing and utilization of existing production capacity, gathered from BC Hydro's confidential discussions with customers and validated against prior Freshet Energy Rate results and known plant operational capabilities;
  - A daily "strike price" of \$55/MWh for each of HLH and LLH, which, based on consultation with customers, represents an average price point at which a customer will voluntarily elect to reduce its take of incremental energy under the Incremental Energy Rate to baseline levels to avoid incurring an energy charge for energy purchases under Rate Schedule 1893 that might otherwise be deemed uneconomic by the customer; and
  - An energy charge adder of \$3/MWh during the freshet months and \$7/MWh during the non-freshet months that BC Hydro considers will be sufficient to recover its marginal cost of energy and make a contribution to fixed costs.<sup>48</sup>
23. The modeling also shows that over a range of conditions, positive revenue from service offered under the Incremental Energy Rate is expected.<sup>49</sup> For instance, over the 46 weather sequences, 40 of 46 sequences have a positive ratepayer impact,<sup>50</sup> with modeled incremental net revenue distributed as follows (reproduced from Exhibit B-1, Application, Table 9):

**RESULTS (all values on a per year basis):**

<b>Expected Incremental Load Net Revenue</b>	<b>1315</b>	<b>\$kCAD</b>
<b>10<sup>th</sup> Percentile Net Revenue</b>	<b>-257</b>	<b>\$kCAD</b>
<b>50<sup>th</sup> Percentile Net Revenue</b>	<b>1308</b>	<b>\$kCAD</b>
<b>90<sup>th</sup> Percentile Net Revenue</b>	<b>2881</b>	<b>\$kCAD</b>

<sup>48</sup> Exhibit B-1, Application, pages 74 to 75; refer also to Exhibit B-12, BCOAPO IR 3.54.1.1, where BC Hydro explained what is not modeled.

<sup>49</sup> Exhibit B-4, BCUC IR 1.16.2.

<sup>50</sup> Exhibit B-4, BCUC IR 1.16.1.

24. When taking implementation costs of the Incremental Energy Rate into consideration, the adjusted ratepayer benefit over the four-year Pilot period ranges from \$1.1 million to \$1.3 million, as shown in the following table (reproduced from Exhibit B-11, BC Hydro's response to BCUC IR 1.16.2):

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

25. BC Hydro acknowledges that load shifting can impact customer participation and thus the forecast of incremental load net revenue. 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, including circumstances when the customer might be deemed to have purchased the energy anyway (i.e., in the absence of service under the Incremental Energy Rate). As explained in BC Hydro's response to BCUC IR 3.2.4, certain special conditions built into the Incremental Energy Rate should help to minimize load shifting risk during the Pilot.<sup>51</sup>

<sup>51</sup> Exhibit B-11, BCUC IR 1.3.4.

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## **4 Evaluation of the Incremental Energy Rate Pilot**

### **4.1 The Evaluation Will be Comprehensive**

26. In section 5.7 of the Application, using some of the same key success measures from the Freshet Energy Rate evaluations, BC Hydro has proposed a list of 13 items to be evaluated and documented in a report to be filed with the BCUC in December 2023.
27. BC Hydro is of the view that the actual impact of load shifting is appropriately considered in the December 2023 evaluation. BC Hydro intends to use the analysis methodology developed for the Freshet Energy Rate pilot, which applies on a retrospective basis and uses actual customer data.<sup>52</sup>
28. BC Hydro submits that the comprehensive list of items for evaluation will provide sufficient information for BC Hydro, the BCUC, customers and interveners to assess the performance of the Pilot.

### **4.2 The Evaluation is Best Conducted in December 2023**

29. BC Hydro submits that an evaluation in December 2023 as proposed by BC Hydro presents the best timeframe for assessing the Pilot. This timeframe will allow an evaluation of performance results over a range of conditions for a period over three years (from the commencement of January 1, 2020 to the end of BC Hydro's fiscal 2023, March 31, 2023). If appropriate, the results of the evaluation would position BC Hydro to consider an application to the BCUC regarding any changes to the Incremental Energy Rate.<sup>53</sup>

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<sup>52</sup> Exhibit B-1, Application, page 84; Exhibit B-11, BCUC IR 3.4.2.

<sup>53</sup> Exhibit B-11, BCUC IR 3.5.1, 3.5.2.

30. Although an evaluation earlier than December 2023 could cover the same reporting items, the analysis may cover less data due to a shortened evaluation period and absence of data for a complete fiscal year of the Pilot. This is because following the end of any fiscal year, several months are required for electricity consumption and billing data from that fiscal year, together with customer submissions regarding events that impacted electricity consumption, to become available and undergo the required analysis and assessment.<sup>54</sup>
31. BC Hydro does not support a requirement to file annual Incremental Energy Rate 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. The evaluation to be conducted as proposed is expected to include information on the performance of the Incremental Energy Rate over each year of the Pilot. Therefore, no additional information will be revealed by conducting annual evaluations.<sup>55</sup>

## **5 Conclusion**

32. BC Hydro submits that the BCUC should approve Rate Schedule 1893 – Transmission Service - Incremental Energy as set out in Appendix C to the Application (revised as shown in Exhibit B-1-2). The proposed Incremental Energy Rate is just and reasonable as the evidence shows that the rate is supported by customers and is expected to bring economic benefits to all BC Hydro ratepayers.

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<sup>54</sup> Exhibit B-11, BCUC IR 3.5.1.1.

<sup>55</sup> Exhibit B-11, BCUC IR 3.5.2.

**ALL OF WHICH IS RESPECTFULLY SUBMITTED JUNE 29, 2020**



Per: \_\_\_\_\_

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