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Our File: 23841/0214

November 13, 2020

**VIA ELECTRONIC MAIL**

British Columbia Utilities Commission  
6<sup>th</sup> Floor, 900 Howe Street  
Vancouver, B.C.  
V6Z 2N3

**Attention: Marija Tresoglavic, Acting Commission Secretary**

Dear Sirs/Mesdames:

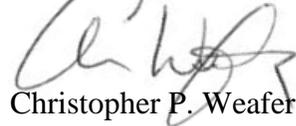
**Re: British Columbia Hydro and Power Authority (“BC Hydro”) Customer Crisis Fund Pilot Program – Year One Evaluation Report ~ Project No. 1599030**

We are counsel to the Commercial Energy Consumers Association of British Columbia (the “CEC”). Attached please find the CEC’s first set of Information Requests with respect to the above-noted matter.

Should you have any questions with regard to the above, please do not hesitate to contact the undersigned.

Yours truly,

**OWEN BIRD LAW CORPORATION**



Christopher P. Weafer

CPW/jj  
cc: CEC  
cc: BC Hydro  
cc: Registered Interveners

**COMMERCIAL ENERGY CONSUMERS ASSOCIATION  
OF BRITISH COLUMBIA (“CEC”)**

**INTERVENER INFORMATION REQUEST NO. 1**

**British Columbia Hydro and Power Authority Customer Crisis Fund (“CCF”) Pilot  
Program – Evaluation Report ~ Project No. 1599030**

**November 13, 2020**

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**1. Reference: Exhibit B-5, page 1**

Directive 6 of BCUC Order No. G-166-17 directs that BC Hydro file an evaluation report following the second year of the CCF Pilot and that the CCF Pilot continue until the earlier of three years from the start of the CCF Pilot unless otherwise ordered by the BCUC. This submission does not apply for any amendments to Order No. G-166-17, nor does it apply for any changes to the CCF Pilot or Rate Schedule (**RS**) 1903 Customer Crisis Fund Rate Rider.

- 1.1 Please identify when the Pilot would complete its three year term in the absence of any further Commission direction.

**2. Reference: Exhibit B-5, pages 1-3**

The purposes of the Two-Year Evaluation Report are to summarize CCF Pilot operations during the first two years of the program, and to provide an evaluation of participant and non-participant benefits that provides information for an examination of whether a crisis fund “would not amount to a social assistance program if it generates a utility benefit sufficiently justifiable on an economic or cost of service basis.”<sup>1</sup>

### **CCF Pilot Benefits**

The purpose of the CCF Pilot is to examine the economic benefits resulting from reduced operating costs associated with notification and collection of overdue bills, creation of payment arrangement and disconnection and reconnection service, reduced interest costs because of more timely payments, and increased revenue by avoiding losses in consumption (i.e., revenue loss from losing customer consumption), and to determine whether the economic benefits are sufficient to offset the program costs.

Accordingly, the evaluation of the pilot program indicates there are insufficient utility benefits to justify CCF on an economic or cost of service basis notwithstanding the potential societal benefits of the CCF.

- 2.1 Did the Commission identify any purposes for the CCF Pilot other than assessing the economic justification for the CCF?
  - 2.1.1 If yes, please identify and provide supporting evidence, or identify where the evidence may be found in the current record.

### **3. Reference: Exhibit B-5, page 4**

In its Decision accompanying Order No. G-5-17 (**2015 RDA Decision**),<sup>2</sup> the BCUC determined that it did not have jurisdiction to set a low-income rate without an economic or cost of service basis for such a rate. However, it was persuaded by the intervener group's argument that a crisis intervention program "would not amount to a social assistance program if it generates a utility benefit sufficiently justifiable on an economic or cost of service basis."<sup>3</sup> Given insufficient evidence in that proceeding, the BCUC directed BC Hydro to establish a crisis intervention fund pilot program:

"The establishment of a pilot Crisis Intervention Fund is approved. BC Hydro is directed to prepare and file, within six months of the date of this order, a proposed crisis assistance pilot program for residential customers who have arrears with BC Hydro and are unable to pay their electricity bills. BC Hydro has indicated that it is prepared to work collaboratively with the low-income advisory group in the development of its proposal, and the Commission expects that it will do so."<sup>4</sup>

- 3.1 Please elaborate on the rationale for the Commission's determination that it did not have jurisdiction to set a low-income rate without an economic or cost of service basis.
- 3.2 Please confirm, or otherwise explain, that the Commission did not identify any additional justifications (such as public opinion) for establishing a low-income rate, beyond the possibility that it could be justified on an economic basis.

**4. Reference: Exhibit B-5, page 6**

As recommended by the BCUC in its Order No. G-5-17, BC Hydro had worked collaboratively with its Low Income Advisory Council (**LIAC**) in the development of the pilot proposal, including eligibility criteria for customers to participate in the pilot. BC Hydro appreciates the LIAC members' assistance in launching the pilot.

- 4.1 Is the LIAC an internal BC Hydro council, or a separate body?
  - 4.1.1 If the LIAC is a BC Hydro council, please confirm it includes members from the Low Income Advisory Group referenced by the Commission.
  - 4.1.2 If not, please explain why not.
  - 4.1.3 If the LIAC is an internal council, please provide a brief review of the members of BC Hydro's LIAC.

**5. Reference: Exhibit B-5, page 6**

On May 1, 2018, BC Hydro started the CCF Pilot. On June 1, 2018, BC Hydro began billing the CCF Rate Rider of 0.82 cents per day on applicable residential customers' bills. Revenue collected from residential customers through the CCF Rate Rider is used to provide grants to eligible CCF Pilot participants and to fund BC Hydro's incremental costs associated with the CCF Pilot.

- 5.1 Please confirm that commercial customers are not eligible to participate in the program.
- 5.2 Please confirm that commercial customers do not directly contribute to the cost of the CCF Pilot.
- 5.3 Please provide the Revenue:Cost ratios for residential and commercial rate classes.

5.4 If the program were likely to continue, is it expected that it would remain as a residential program funded by residential customers?

5.4.1 If no, please explain why not.

**6. Reference: Exhibit B-5, page 6 and Exhibit A-3, Order G-5-20 Appendix A page 5**

### **1.3 Earlier Evaluation Requested and Pilot Review Suspended**

Between June and October 2018, BC Hydro received 1,307 complaints regarding the CCF Pilot and the CCF Rate Rider. The BCUC also “received a substantial number of complaints and other correspondence from ratepayers” as indicated in BCUC Order No. G-211-18.<sup>7</sup> While recognizing that some of the customer concerns about the CCF Pilot had been reviewed in the 2015 RDA, the BCUC believed that “an earlier review of the CCF results would be beneficial as it allows for a timelier evaluation of the program in light of ratepayer concerns”. BC Hydro was thus directed “to file an evaluation report of the CCF Pilot Program within 90 days of the completion of the first year of the CCF Pilot Program” (i.e., from May 1, 2018 to April 30, 2019).

The BCUC received 128 letters of comment from members of the public and 16 letters of comment from interested parties. Many of the concerns raised in the letters of comment include that the CCF Rate Rider is like a tax and forced charitable donation.

6.1 Has BC Hydro received any complaints after October 2018?

6.1.1 If yes, please provide a brief summary of the complaints with quantification as to the volume by topic.

6.2 Has BC Hydro received any further unsolicited commentary on the CCF Rate Rider, either directly or through the Commission, either positive or negative, beyond those cited by the BCUC in Order G05-20?

6.2.1 If yes, please provide an overview of the content received.

**7. Reference: Exhibit B-5, page 7**

With this objective in mind, the Two-Year Evaluation Report assesses the following questions based on BC Hydro's experience operating the CCF Pilot from May 1, 2018 to April 30, 2020:

- Does providing grants to customers in a temporary financial crisis:
  - ▶ Maintain their electrical service, and
  - ▶ Improve their ongoing ability to pay their bills? and
- Are there operational cost savings (including revenue losses and bad debt expenses) that offset program costs to justify the CCF program on an economic or cost of service basis?

This Two-Year Evaluation Report also provides operational metrics based on BC Hydro's experience in operating the CCF Pilot.

For clarity, the purpose of the Year Two Evaluation Report is not to make a recommendation regarding the viability of an on-going customer crisis program. Additionally, the Two-Year Evaluation Report provides the economic evaluation based on two-year data of CCF operation, updates operational metrics to reflect two years of CCF operations, and summarizes an additional customer survey conducted during the second year. The Two-Year Evaluation Report does not replicate or update BC Hydro's summary of the operating model, analysis of BC Hydro customer opinions; analysis of CCF Grant Recipient's experience, opinion and characteristics; or the operational assessment presented in the Year One Evaluation. For this information please refer to the CCF Year One Evaluation Report.<sup>9</sup>

- 7.1 Does BC Hydro have a position as to whether or not the crisis program should be continued?
- 7.1.1 If yes, please provide a brief summary of BC Hydro's position, with rationale.
  - 7.1.2 If BC Hydro believes it is appropriate to continue, will BC Hydro be making an application to that end in the near future? Please explain and provide timing.
- 7.2 Would BC Hydro consider developing a similar program for commercial customers? Please explain why or why not.

**8. Reference: Exhibit B-5, pages 10-11**

In addition, the operation of the CCF Pilot Program was temporarily changed, including:

- Customers could apply as soon as they had accounts in arrears without waiting for a notice of disconnection. This change was made primarily because dunning notices were not being sent as noted above and thus customers were unable to demonstrate they were facing disconnection. The change was also made in recognition that customers may have incurred additional costs related to the COVID-19 pandemic but are not eligible for the COVID Relief Fund.
- Customers could receive a second CCF grant between April 1, 2020 and December 31, 2020 (within the 12-month period of the previous grant) if the initial grant had been for less than the maximum amounts. The second grant would be the difference between the initial grant amount and the maximum grant amounts (i.e., \$500 for non-electrically heated homes and \$600 for electrically heated homes).

- 8.1 Please provide a brief overview of the particulars of the CCF fund, describing when customers could normally apply, what eligibility restrictions were in place, what benefits customers could receive, whether or not funding had to be paid back, etc.
- 8.2 Is avoiding disconnection the key, or only, issue the CCF is intended to resolve? Please explain.

9. Reference: Exhibit B-5, page 13 and page 21

Table 2 Summary of CCF Grant Application Processing<sup>13</sup>

Applications	Year 1 (Reported)	Year 2	CCF Pilot Totals	Annualized Average
Total Number of Applications Received	6,416	13,719	20,136	10,068
Average # of Applications Per Day	18	38	28	28
Approved Applications	2,282	4,137	6,385	3,193
Rejected Applications	3,827	6,038	9,892	4,946
Grant Reversals after Audit	170	135	361	181
Total Rejected Applications	3,997	6,173	10,253	5,127
Applications Closed or In Progress as of April 30	137	3,409	3,498	1,748
Online	5,775	12,789	18,562	9,281
Paper	641	930	1,574	787
Applications Submitted With Help of 3 <sup>rd</sup> Party (includes Law Foundation Partners & Service BC)	283	267	550	275
Applications Submitted With Help of Other Assistance (includes Band Social Workers or friend/family)	534	741	1,275	638
Applications Submitted Without Help of 3 <sup>rd</sup> Party or Other Assistance	5,599	12,711	18,310	9,155
Total CCF Grants Awarded (\$)	847,518	1,450,034	2,297,552	1,148,776
Average Grant Amount (After Audit) (\$)	371	351	360	360

2.1.4 Reconsideration of Rejected Applications

As explained in the CEF Application,<sup>16</sup> a customer may file a reconsideration of an application that has been rejected. The reconsideration is an independent review process conducted by a second department of BC Hydro.

As shown in [Table 4](#) above, 15 per cent of rejections were due to the applicant not responding to the BC Hydro's request for additional information and 41 per cent were due to the customer not being in arrears or facing the possibility of disconnection. When a customer called our contact centre about a rejection due to one of those two reasons, BC Hydro through our representatives suggested to the customer to re-submit a new application with the required information or when they receive their next collections notice. As a result, most rejected applications did not result in reconsideration. During the first two years, 67 grants were provided as a result of reconsideration of a previous rejection, which equates to 1 per cent of all grant approvals.

9.1 Please explain why the total number of Approved Applications, Rejected Applications, and Applications in Progress do not equate to the Total Number of Applications received.

- 9.2 Please provide the total number of individual accounts that made applications.
- 9.3 Please provide the total number of individual accounts that received funding.
- 9.4 Please provide the range of funding that was provided to individual accounts.

**10. Reference: Exhibit B-5, page 18-19**

**Table 4 Rejected Applications by Reason**

Reason	CCF Pilot	
	Number of Grants Rejected	Percentage of Grants Rejected (%)
Account is not in arrears or is not facing disconnection	4,056	41
Applicant is not experiencing a temporary financial crisis	2,174	22
Application has not provided requested information <sup>14</sup>	1,480	15
Applicant has not demonstrated prior attempt to pay bills	398	4
Account has a balance exceeding \$1,000	102	1
Applicant is not account holder residing at address in arrears	195	2
Applicant has applied in past 12 months	50	<1
Other	1,437	15
<b>Total</b>	<b>9,892</b>	<b>100</b>

Throughout the CCF Pilot, BC Hydro worked with its Pilot partners (Service BC, Law Foundation of BC, Ministry of Social Development and Poverty Reduction) and stakeholders (including the LIAC) to improve the clarity of eligibility criteria and

the application form to reduce the number of applications that was rejected due to possible confusion about the eligibility criteria and also to make completing the application form easier. This is reflected in [Figure 4](#), showing that each month's approval rate was higher than in the second year than in the first year, except for April 2020. The application approval rate averaged about 62 per cent between May 2019 and March 2020. The approval rate fell to 52 per cent in April 2020, as many customers applied after having experiencing job loss due to COVID-19 pandemic, but were not eligible because they did not have balances in arrears.<sup>15</sup>

- 10.1 Why are customers with balances exceeding \$1000 not eligible?
- 10.2 Please explain if the customer’s financial crisis must be temporary. Could the customer be experiencing an ongoing financial crisis? Please explain briefly.
- 10.2.1 How does BC Hydro determine if the customer is experiencing a temporary financial crisis?

**11. Reference: Exhibit B-5, page 21-22**

In the majority of cases, grant recipients are randomly selected. However, in some cases, the CCF Team may identify an application for audit, for example, based on other information available in BC Hydro’s SAP billing system. In the CEF Application, BC Hydro indicated it intended to audit approximately 10 per cent of successful CCF grant applications. It was determined after year one operations that the CCF

program would increase its target percentage of audit checks to approximately 20 per cent of approved grant applications as a result of the audit failure rate being higher than anticipated.

As shown in [Table 6](#) below, BC Hydro conducted 1,124 audits during the first two years of operations, which was approximately 18 per cent of approved applications.<sup>18</sup>

**Table 6 CCF Pilot Audits**

	<b>Year 1 (Reported)<sup>19</sup></b>	<b>Year 2</b>	<b>Total/Average<sup>20</sup></b>
Approved Applications	2,452	4,137	6,385
Customer Audits Conducted	522	500	1,124
Customer Audits in Progress	0	75	75
Percentage of Approved Applications Audited (%)	21	12	18
Successful Grants After Audits	352	290	688
Audit Success Percentage (%)	67	58	61
Rejected Grants After Audit	170	135	361
Audit Failure Percentage (%)	33	27	32

<sup>18</sup> No audits were conducted in March or April 2020 as a result of the COVID-19 pandemic and the need to redirect CCF staff to support the operations of the COVID-19 relief fund.

<sup>19</sup> Total applications approved as reported in the Year One Evaluation. Total number of Approved Applications and Customer Audits Conducted have been adjusted as of Year 2.

<sup>20</sup> Totals and averages based on statistics reported at the end of Year 2. Sum totals will not correspond with years 1 and 2 due to adjustments made after year 1 reporting.

11.1 Please rationalize BC Hydro’s statement that it intended to increase its audits after year 1, with the evidence showing that fewer audits were completed in year 2 than in year 1, and the lower percentage of approved applications being audited, being only 12% in year 2.

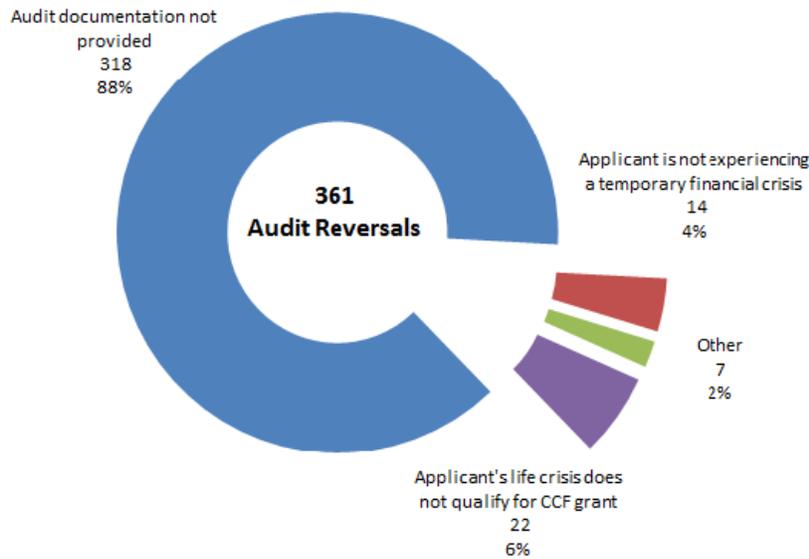
11.2 What level of auditing would BC Hydro expect to undertake if the CCF program were to continue? Please explain and explain why.

**12. Reference: Exhibit B-5, page 22 and 23**

**Table 6 CCF Pilot Audits**

	Year 1 (Reported) <sup>19</sup>	Year 2	Total/Average <sup>20</sup>
Approved Applications	2,452	4,137	6,385
Customer Audits Conducted	522	500	1,124
Customer Audits in Progress	0	75	75
Percentage of Approved Applications Audited (%)	21	12	18
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Audit Success Percentage (%)	67	58	61
Rejected Grants After Audit	170	135	361
Audit Failure Percentage (%)	33	27	32

**Figure 5 Cause of CCF Pilot Audit Failures**



The audit failure rate decreased slightly over the two-year CCF Pilot, from 33 per cent in year one to 27 per cent in year two. In working with program partners and the LIAC, anecdotal comments have been made that the applicant is being asked for too much information or the type of information being sought is hard for the applicant to produce. Comments have also referenced customers not fully understanding the CCF Pilot requirements when they apply. BC Hydro introduced improvements to the CCF application form in May 2019 to facilitate an applicant's better understanding of the CCF Pilot eligibility criteria, and to make the application form more user-friendly. It is assumed that these improvements helped contributed to the improved audit failure rate.

- 12.1 Please confirm that BC Hydro has substantive processes in place to approve the grant based on the information received at the time of application.
- 12.2 Please describe the type of documentation required for an audit that is not required in the application.
- 12.3 Was there a particular set of documents that audited customers were regularly unable to provide? Please explain.
- 12.4 Could BC Hydro increase the level of documentation required at the stage of initial application to reduce the audit failure rate? Please explain why or why not.
- 12.5 What proportion of those rejected for lack of documentation were ultimately resolved?

**13. Reference: Exhibit B-5, page 25**

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**Table 7                      Estimated and Actual Year One and Two  
CCF Pilot Operating Cost (Excluding  
Grants)**

CCF Pilot Annual Operating Costs	Estimated Annual Cost (\$)	Year 1 Actual Cost (\$)	Year 2 Actual Cost (\$)	Actual Annualized (\$)
Program Management	200,000	74,069	29,672	51,871
Administration and Adjudication	450,000	381,044	349,757	365,401
Information Technology Systems	50,000	38,098	0	19,049
Training	10,000	9,001	232	4,617
Program Evaluation	30,000	11,205	24,618	17,911
Community Service Organizations Application Support	160,000	44,763	35,358	40,060
<b>Total Annual Operating Costs</b>	<b>900,000</b>	<b>558,179</b>	<b>439,639</b>	<b>498,909</b>

13.1 Please describe what is included in Administration and Adjudication.

13.1.1 Please describe what is included in Community Service Organization Application support.

**14. Reference: Exhibit B-5, page 27**

One-third of successful CCF grant applications were rejected following random audits. Failure to provide documentation on request was the reason for reversal of CCF grants in 85 per cent of cases. As a result of this level of audit failures, BC Hydro has increased the target percentage of successful grant applications being audited to 20 per cent, up from 10 per cent that was initially intended.

14.1 What is the average cost of an audit?

14.2 Based on the high failure rate, would BC Hydro consider increasing its audit up to 30%, or 40%? Please explain why or why not.

**15. Reference: Exhibit B-5, page 29**

**Table 10 Evaluation Objectives, Data and Method**

<b>Evaluation Objectives</b>	<b>Data</b>	<b>Method</b>
Reduced Lost Revenue due to fewer Disconnections	<ul style="list-style-type: none"> <li>Collections notices, disconnection and reconnection data for all eligible customers for pilot years, account data from BC Hydro's billing system</li> </ul>	<ul style="list-style-type: none"> <li>Quasi-experimental design</li> </ul>
Reduced Cost of Collections Notifications	<ul style="list-style-type: none"> <li>Collections notices for all eligible customers for pilot years, account data from BC Hydro's billing system</li> </ul>	<ul style="list-style-type: none"> <li>Quasi-experimental design</li> </ul>
Reduced Cost of Borrowing	<ul style="list-style-type: none"> <li>Collections notices and bad debts for all eligible customers for pilot years, account data from BC Hydro's billing system</li> </ul>	<ul style="list-style-type: none"> <li>Quasi-experimental design</li> </ul>
Reduced Bad Debt Expense	<ul style="list-style-type: none"> <li>Collections notices and bad debts for all eligible customers for pilot years, account data from BC Hydro's billing system</li> </ul>	<ul style="list-style-type: none"> <li>Quasi-experimental design</li> </ul>

15.1 Did BC Hydro attempt to quantify any benefit from public opinion with respect to offering the CCF?

15.1.1 If yes, how did BC Hydro do so?

15.1.2 If no, why not?

15.2 Does BC Hydro expect that there would be any quantifiable changes in future regulatory costs as a result of the CCF? Please explain.

15.2.1 If yes, please provide BC Hydro's estimate of the impact on regulatory costs.

**16. Reference: Exhibit B-5, page 38**

**3.5.2 Matched Control Group**

A matched control group was created by matching the customer accounts in test group to customers from the eligible control group, based on the following six parameters:

1. Customer account housing type;
2. Primary heating fuel type (electric heating customers have much more seasonal variation than non-electric heating customers);
3. Payment option (standard or equal payment);
4. FNOD overdue amount (during or adjacent to the month the FNOD letter was sent to the matched test group account);
5. Annual energy consumption; and
6. Account close date (Needed to ensure an accurate comparison of accounts expensed as bad debts).

16.1 Please confirm or otherwise explain that the control group does not appear to account for the 'temporary crisis' requirements that the test group would be experiencing.

16.2 Does BC Hydro have evidence as to whether or not 'temporary crises' make significant differences as to bill payment behavior? Please explain.

**17. Reference: Exhibit B-5, page 39**

**3.6 Difference in Differences (DID) Methodology**

Although the test and control groups were matched as closely as possible with available data, some selection bias may exist, such as income disparity and whether members of the matched control group were also impacted by an 'unplanned life event'. To limit the potentially confounding extraneous effects and selection bias, the DID technique was applied to measure the differences between the test and matched control groups over time. The DID technique effectively reduces the impact of unexplainable changes that affect both the test and matched control groups. The DID technique provides an estimate of the net effect of the CCF Pilot, controlling for the variables described above.

17.1 Is it also possible that there is selection bias in that the test group could have more or less propensity to seek or receive assistance than the control group?

17.1.1 If yes, would such selectivity be captured in the DID Methodology?

**18. Reference: Exhibit B-1, page 41**

**3.7 Methodology to Determine Hypothesized Economic Benefits**

**3.7.1 Lost revenue due to disconnections**

The methodology employed to determine the loss of revenue avoided was to compare the average disconnection rate of the matched control group to that of the test group, and then to estimate the average loss of revenue due to disconnections in the population of eligible customers (defined above in [Table 11](#) as residential customers served by one of the CCF eligible rates and who received any of the six types of dunning notice).

The total reduction in lost revenue would be the difference in disconnection rates multiplied by the average lost revenue per customer for each month after disconnection for the first two years of the CCF Pilot.

18.1 Did BC Hydro consider whether or not there was any difference in the duration of disconnections?

18.1.1 If no, why not?

18.1.2 If yes, please explain.

18.1.3 Would such a consideration have any bearing on lost revenue? Please explain why or why not.

**19. Reference: Exhibit B-5, page 41 and page 43 and page 45**

**3.7.2 Cost of collections notifications**

The reduction in cost of collection notifications was determined by comparing the average cost of notifications to the matched control group to the average cost of notifications to the test group after the CCF grant was provided. A decrease in the average number of collections notification indicates a reduction in the costs. The reduction in costs would be the decrease in average number of collections multiplied by the average cost per notification, by month after the CCF grant was provided.

The control group was issued approximately the same number of FNOD letters as the test group. The DID estimator indicated that there were on average 0.006 more FNOD letters for the Test Group than there were for the Control Group, and the corresponding p-value was 0.8511. The lower and upper bounds for the estimate at the 80 per cent and 90 per cent confidence levels are listed in [Table 18](#). The difference between the numbers was too small to have any statistical significance. This result means that the CCF Pilot had no impact on the frequency of FNOD collection notice letters.

19.1 Please provide BC Hydro's hypothesis, if available, of why the test group did not experience a reduction in the FNOD after the CCF grant was provided, and please consider that the Test group was presumably experiencing a 'temporary' rather than permanent crisis.

19.1.1 Is it reasonable to suggest that the CCF grant size is not sufficiently large to make a significant difference in the financial wherewithal of customers participating to make a difference? Please explain.

19.2 In BC Hydro's understanding, are there other types of intervention, not carried out by BC Hydro, that tend to provide lasting changes in customers' ability to make payments?

**20. Reference: Exhibit B-5, page 43**

The general trend was similar for both groups, with an increase from the average disconnection rate during the month prior to the CCF application for the test group or the FNOD for the matched control group, followed by a steep decline as the grant is applied for the test group account or the missed payment is applied to the control group account. The apparent one-month delay between the two groups was likely due to the matching criterion that allowed a match on overdue amounts one month on either side of the grant month as described in section [3.5.2](#). The average rate of disconnections then rose to a similar pre-crisis level after two months, indicating a return to the 'norm' for both groups.

The data indicated that the test group had about a 10 percent higher disconnection rate than the matched control group. The DID estimator showed that there were on average 0.002 more disconnections per customer from the test group than there were from the matched control group, and the corresponding p-value was 0.8162. The lower and upper bounds for the estimate at the 80 per cent and 90 per cent confidence levels are listed in [Table 17](#). The difference between the numbers was too small to have any statistical significance at either 80 per cent or 90 per cent confidence levels, as shown in [Table 16](#). This result means that the CCF Pilot had no impact on customer disconnections.

**Table 17 Upper and Lower Estimate Bounds for the Disconnection Rate**

<b>Disconnection Estimate Bounds</b>	<b>Lower</b>	<b>Upper</b>
<b>80% Confidence Interval</b>	-0.012	0.008
<b>90% Confidence Interval</b>	-0.014	0.011

As there is not a statistically significant difference in the disconnection rate for test group customers, BC Hydro concludes the CCF Pilot did not provide economic benefits in the form of reduced revenue loss.

20.1 Please explain what is meant by 'the missed payment is applied to the control group account.'

20.2 Is it fair to say that the CCF did not result in customers avoiding being disconnected?

20.2.1 If no, please explain why not.

**21. Reference: Exhibit B-5, page 51 and page 25**

**4 Public Opinion**

For the Two-Year Evaluation Report, BC Hydro conducted an omnibus survey to measure the ongoing awareness of the CCF Pilot Program as well as to assess the ongoing support for the CCF Rate Rider. The survey was intended to see if public opinion was similar to results identified in the comprehensive survey included in the Year One Evaluation Report.

**4.1 Survey Objective and Methodology**

The specific objectives of the public opinion survey were to measure and assess:

- the level of awareness of the CCF Pilot;
- the level of awareness of the CCF Rate Rider on the bill; and
- how supportive the customers are of a CCF Pilot program being funded through a rate rider?

This omnibus survey was administered by Leger Marketing from May 29, 2020 to May 31, 2020 to a general population sample of 1,000 British Columbians. No margin of error can be associated with a non-probability sample (online panel in this case). However, for comparative purposes, a probability sample of 1,000 respondents would have a margin of error of ±3.1 per cent, 19 times out of 20.

**Table 7 Estimated and Actual Year One and Two CCF Pilot Operating Cost (Excluding Grants)**

CCF Pilot Annual Operating Costs	Estimated Annual Cost (\$)	Year 1 Actual Cost (\$)	Year 2 Actual Cost (\$)	Actual Annualized (\$)
Program Management	200,000	74,069	29,672	51,871
Administration and Adjudication	450,000	381,044	349,757	365,401
Information Technology Systems	50,000	38,098	0	19,049
Training	10,000	9,001	232	4,617
Program Evaluation	30,000	11,205	24,618	17,911
Community Service Organizations Application Support	160,000	44,763	35,358	40,060
<b>Total Annual Operating Costs</b>	<b>900,000</b>	<b>558,179</b>	<b>439,639</b>	<b>498,909</b>

21.1 Please provide the estimated cost of the public opinion survey.

21.1.1 Where was this cost included in Table 7?

21.2 Was BC Hydro directed by the Commission to include a public opinion survey in the Evaluation Report?

21.2.1 If not, why was it conducted and included?

**22. Reference: Exhibit B-5, page 51 and 52-53**

This omnibus survey was administered by Leger Marketing from May 29, 2020 to May 31, 2020 to a general population sample of 1,000 British Columbians. No margin of error can be associated with a non-probability sample (online panel in this case). However, for comparative purposes, a probability sample of 1,000 respondents would have a margin of error of  $\pm 3.1$  per cent, 19 times out of 20.

The survey was divided into three regions (Greater Vancouver, Greater Victoria, Rest of BC), three age groups (18 to 34, 35 to 54, 55+), and gender (male, female) to provide general demographic information.

This survey approach was chosen in order to gauge the perceptions of the CCF from a large, representative sample of British Columbians in a cost- and time-effective way.

22.1 Please describe what is meant by a ‘non-probability sample’.

**23. Reference: Exhibit B-5, page 52-53**

**3 4.2.2 Initial Public Support for the CCF Pilot**

4 In view of soliciting their views of the CCF Pilot in its broad purpose and goal, all  
5 respondents were asked if *‘it’s important to recognize that some customers may face  
6 life events that cause temporary financial challenges in paying household bills?’* In  
7 response, 90 per cent of respondents agreed with this statement. This response can  
8 be considered fairly firm as 60 per cent ‘strongly agreed’ with this statement and only  
9 30 per cent ‘somewhat agreed’. This response was firm across all regions and age  
0 groups. Agreement was significantly strong in the Greater Victoria region leading all  
1 respondents with 97 per cent. [Figure 12](#) below shows the percentage of respondents  
2 who answered Agree or Strongly Agree.

**Figure 12**      **Survey Question – “Is it important to recognize customers may face life events that cause temporary financial challenges in paying household bills?”**

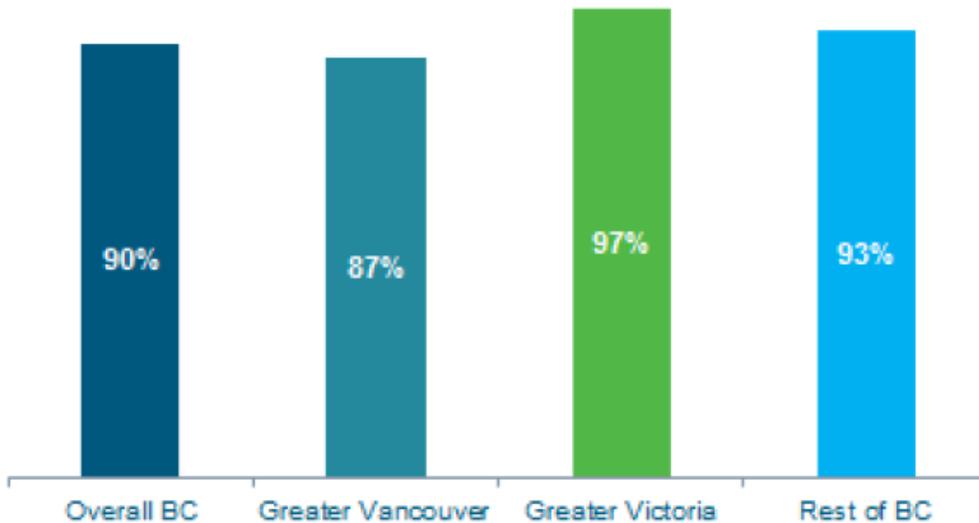


Chart shows sum of the percentage of those who answered Agree or Strongly Agree.

- 23.1 Please confirm that honest, unbiased feedback is critical for research.
- 23.2 Please confirm that leading questions in surveys include providing implied answers in the question or making it difficult or awkward for a user to provide a specific answer.
- 23.3 Please confirm that leading questions in surveys can result in biased or false answers.
- 23.4 What processes did BC Hydro and/or Leger Marketing following in designing the survey? Who wrote the survey questions?
  - 23.4.1 If Leger Marketing designed the survey, please provide any instructions that were provided to them with respect to the parameters or objectives of the survey.

24. Reference: Exhibit B-5, page 55

**Figure 14** Survey Question – “I am supportive of BC Hydro continuing to charge a small fee (roughly 13 cents a month) to keep the Customer Crisis Fund.”



Chart shows sum of the percentage of those who answered Agree or Strongly Agree.

- 24.1 Please identify what costs are included in the \$0.13/mo. Does that represent the rate rider or the total program cost?
- 24.2 Please confirm that including the term ‘small’ makes generalizations as to the impact of the Customer Crisis Fund and leads customers to a perception of the size of the impact.
- 24.3 Did BC Hydro provide survey respondents with information as to the type and size of grant being offered, the number of participants and the results related to disconnection or other items when inquiring as to whether it was appropriate for the CCF to continue? Please explain.