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February 27, 2020

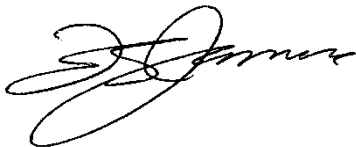
Mr. Patrick Wruck
Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

**RE: Project No. 1599004
British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Application to Amend Net Metering Service under Rate Schedule 1289
Final Argument**

BC Hydro writes in compliance with BCUC Order No. G-293-19 to provide its Final Argument.

Yours sincerely,



Fred James
Chief Regulatory Officer

cs/ma

Enclosure (1)

**Application to Amend Net Metering Service under
Rate Schedule 1289**

**British Columbia Hydro and Power Authority
Final Argument**

February 27, 2020

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1 **Part 1 Introduction**

- 2 1. British Columbia Hydro and Power Authority (**BC Hydro**) filed an application
3 with the British Columbia Utilities Commission (**BCUC**) on April 29, 2019
4 (**Application**), to amend Rate Schedule 1289 (**RS 1289**), which provides Net
5 Metering Service to BC Hydro's residential and commercial customers. The
6 Application is filed pursuant to sections 59 to 61 of the *Utilities Commission Act*¹
7 (**UCA**).
- 8 2. The following is BC Hydro's Final Argument with respect to the orders it seeks
9 in the Application. BC Hydro's evidence makes a compelling case for granting
10 the approvals sought in the Application.²
- 11 3. BC Hydro's objectives for the Net Metering Program (**Program**), as set out in
12 the Application are to:
- 13 • Maintain the Program as a load offset program so that customers can
14 generate their own electricity to reduce their supply from BC Hydro;
 - 15 • Allocate the benefits and costs of the Program fairly between participating
16 and non-participating customers;
 - 17 • Offer an accessible, streamlined and transparent process for participation;
18 and
 - 19 • Provide a safe process for Program participants to connect to BC Hydro's
20 system.³

¹ RSBC 1996, c.473.

² The approvals BC Hydro is seeking are outlined in section 1.2 of the Application. A draft order is provided as Appendix A of the Application.

³ Exhibit B-1, page 3.

- 1 4. BC Hydro seeks BCUC approval for the following proposed amendments to
2 RS 1289:⁴
- 3 • Limit RS 1289 eligibility to those customers proposing a Generating
4 Facility⁵ with an estimated Annual Energy Output⁶ no greater than
5 110 per cent of their estimated Annual Load,⁷ with some provisions to
6 provide additional flexibility for customers.⁸ These amendments would
7 make the interim amendments approved by BCUC Order No. G-100-18,
8 on BC Hydro's April 20, 2018 Application to Amend Net Metering Service
9 RS 1289 (**2018 Amendment Application**) permanent, with some
10 adjustments to respond to feedback that BC Hydro has received from
11 customers.⁹ The amendments are intended to provide BC Hydro with the
12 discretion to deny applications that propose a Generating Facility sized to
13 exceed a customer's historical or estimated Annual Load, resulting in
14 systemic generation of surplus energy (**Oversized Generating**
15 **Facility**¹⁰).¹¹
 - 16 • Assign all RS 1289 customers a default anniversary date (**Anniversary**
17 **Date**) of March 1 and allow customers to choose their own anniversary
18 date once. Currently, the Anniversary Date occurs annually following the
19 date the customer begins receiving service under RS 1289, which may

⁴ Proposed amendments are reflected in Appendix B of the Application, Revised Tariff Pages – Clean and the blacklined Tariff Pages are provided as Exhibit B-5, BC Sustainable Energy Association (**BCSEA**) IR 1.15.1.

⁵ “Generating Facility” is defined as the energy generation facility installed by the customer.

⁶ “Annual Energy Output” is defined as the amount of electricity generated by a customer's Generating Facility in a given year.

⁷ “Annual Load” is defined as the amount of electricity consumed by a customer in a given year.

⁸ As discussed further starting at paragraph 34 below, provided that the BCUC approves the proposed amendment to the Energy Price, BC Hydro is amenable to increasing the exemption threshold to 10 kW, as suggested by the Canadian Solar Industry Association (**CanSIA**), Peace Energy A Renewable Energy Cooperative (**PEC**) and Riverside Energy Systems (**Riverside Energy**).

⁹ Exhibit B-1, pages 19 and 22.

¹⁰ “Oversized Generating Facility” is defined as a Generating Facility that is sized to have an Annual Energy Output that exceeds the customer's Annual Load.

¹¹ Exhibit B-1, page 23.

- 1 prevent customers from maximizing the amount of Annual Load they are
2 able to offset.¹²
- 3 • Update the price (**Energy Price**) BC Hydro pays a customer for the
4 balance remaining in their generation account (**Generation Account**
5 **Balance**) at the customer's Anniversary Date. BC Hydro proposes an
6 Energy Price based on the daily average Mid-Columbia (**Mid-C**) prices for
7 the previous calendar year, converted to Canadian dollars. This
8 amendment is intended to align the Energy Price with the value BC Hydro
9 receives from net excess generation from RS 1289 customers.¹³
 - 10 • Maintain the current Energy Price of 9.99 cents per kWh for all customers
11 with accepted Net Metering Applications as of April 20, 2018, for a period
12 of five years (**Transitional Energy Price**). The five-year transitional period
13 will mitigate the impact of the Energy Price change to existing Program
14 customers by providing time for those customers to plan to adjust to the
15 updated Energy Price.¹⁴
 - 16 • Make various minor amendments to RS 1289 to improve clarity and
17 simplicity, to maintain the safety of the Program and to reflect existing
18 Program practices.¹⁵
- 19 5. BC Hydro's proposed amendments are intended to align with its objectives for
20 the Program by providing BC Hydro with the discretion to deny applications for
21 Oversized Generating Facilities, improving opportunities for customers to offset
22 their load, reducing cost-shifting between participating and non-participating
23 customers with regards to Surplus Energy Payments, mitigating the impact to

¹² Exhibit B-1, pages 31 to 32.

¹³ Exhibit B-1, pages 39 to 41 and Exhibit B-3, BCUC IR 1.5.1.

¹⁴ Exhibit B-1, page 47.

¹⁵ Exhibit B-1, pages 41 to 44.

- 1 existing Program customers by providing time for those customers to plan to
2 adjust, and maintaining Program safety, clarity and simplicity.
- 3 6. BC Hydro's proposed amendments to RS 1289 do not seek to modify the
4 structure of the Program.
- 5 7. The Program allows BC Hydro's residential and general service customers to
6 install up to a 100 kilowatt generating facility on their premise that utilizes
7 biogas, biomass, geothermal heat, hydro, solar, ocean, wind or other clean and
8 renewable resource to generate electricity, and, subject to BC Hydro approval
9 and the customer's compliance with interconnection requirements
10 (**DGTIR-100**), commence parallel operation of the Generating Facility.
11 BC Hydro does not seek to modify these elements of the Program,¹⁶ and
12 instead seeks to modify the eligibility requirements to prevent Oversized
13 Generating Facilities.
- 14 8. Once a RS 1289 customer begins parallel operation of their Generation Facility,
15 BC Hydro establishes a generation account (**Generation Account**) for the
16 customer. When the customer generates more electricity than they use, the
17 excess generation is recorded in the customer's Generation Account. When the
18 customer consumes more than they generate, they draw on their Generation
19 Account Balance. BC Hydro does not seek to modify this element of the
20 Program,¹⁷ and instead seeks to provide customers with an opportunity to offset
21 more of their load by setting optimized Anniversary Dates.
- 22 9. Once every 12-months, if the customer has a Generation Account Balance
23 remaining at the Anniversary Date, BC Hydro pays the customer for that
24 remaining balance at the Energy Price (**Surplus Energy Payment**). BC Hydro

¹⁶ Exhibit B-5, BC Community Solar Coalition (**BCCSC**) IR 1.4.2.

¹⁷ Exhibit B-5, Net Metering Ratepayers Group (**NMRG**) IR 1.13.2.

1 is not seeking to change this element of the Program,¹⁸ but instead seeks to
2 amend the Energy Price to better reflect the value of that energy to BC Hydro.

3 10. Granting the approvals sought to amend RS 1289 will:

- 4 • Maintain the Program as a load offset program and improve opportunities
5 for customers to offset their electricity consumption;¹⁹
- 6 • Improve fairness between participating and non-participating customers by
7 reducing cost shifting;²⁰
- 8 • Provide existing customers most likely to be impacted by the change in
9 Energy Price with a five-year transition period to mitigate the impact of the
10 change, and
- 11 • Improve RS 1289 to better reflect existing program practices and improve
12 the clarity and simplicity of the Program.

13 **Part 2 Context**

14 **A. Application Background**

15 11. The Program was established in March 2004 by BCUC Order No. G-26-04 and
16 allows residential and commercial customers to safely generate clean electricity
17 for their own use.²¹

18 12. Customers choose to participate in the Program for a variety of reasons.²²

19 Some of the benefits of participating described in letters of comment submitted
20 in this proceeding include: "...offset my normal usage..."²³ "an action I could

¹⁸ Exhibit B-5, NMRG IR 1.13.2.

¹⁹ Exhibit B-1, page 6.

²⁰ Exhibit B-3, BCUC IR 1.5.1.

²¹ Exhibit B-1, page 10.

²² Exhibit B-15, NMRG IR 3.26.6.

²³ Exhibit E-65.

1 *take to help the environment*”,²⁴ “...reduce our carbon footprint...”,²⁵ “...power
2 *my weekend cabin*”,²⁶ “...doing my part to move our world into a more
3 *sustainable energy source*”,²⁷ “...offset cost and care for the environment...”²⁸
4 “...[indicate] support for renewable energy projects”,²⁹ and “[w]e have invested
5 *in multiple electric vehicles...and we believe that solar power added to our*
6 *home would help to reduce our overall costs...*”.³⁰

7 13. The Application follows the 2018 Amendment Application which proposed
8 interim amendments to address Oversized Generating Facilities. By BCUC
9 Order No. G-100-18, the BCUC approved the amendments sought in that
10 application on an interim basis and directed BC Hydro to file its next Net
11 Metering application for approval of further amendments by no later than
12 December 15, 2018. By BCUC Order No. G-3-16, this date was extended to
13 April 30, 2019.³¹

14 14. To inform the Application, BC Hydro conducted a review of the Program and its
15 requirements. As part of its review, BC Hydro consulted customers and
16 stakeholders through two webinars and an online survey (**Engagement**
17 **Survey**). There were a total of 301 participants in the webinars and BC Hydro
18 received 706 survey responses. The webinar materials are provided as
19 Appendix D of the Application and the Engagement Survey and a summary of
20 the responses received are provided as Appendix E of the Application.

²⁴ Exhibit E-6.

²⁵ Exhibit E-95.

²⁶ Exhibit E-70.

²⁷ Exhibit E-57.

²⁸ Exhibit E-5.

²⁹ Exhibit E-13.

³⁰ Exhibit E-99.

³¹ Exhibit B-1, page 1.

1 BC Hydro also received letters and emails from stakeholders providing
2 comments on the proposed amendments.³²

3 15. BC Hydro modified its proposed amendments in the Application based on the
4 feedback received from stakeholders and customers in the webinars and
5 Engagement Survey³³ and provided a detailed table showing how comments
6 and submissions were considered when preparing the Application.³⁴

7 16. BC Hydro also undertook a jurisdictional review of the net metering programs at
8 eight other utilities. This review is provided as Appendix G of the Application.
9 This information informed BC Hydro's identification and assessment of options
10 to address the matters in the Application. BC Hydro also conducted a further
11 jurisdictional review with regards to the price paid for net excess generation, in
12 response to an information request.³⁵

13 **B. Comprehensive Evidentiary Record**

14 17. The BCUC is well positioned to determine the issues based on an appropriate
15 regulatory process and an extensive evidentiary record.

16 18. Eighteen parties intervened in this proceeding and 13 of them participated
17 actively (collectively, **Intervenors**). Additionally, 13 parties registered as
18 interested parties and over 250 letters of comment were submitted.

19 19. BC Hydro and Intervenors filed a significant amount of information regarding
20 the Program and BC Hydro's proposed amendments, including:

- 21 • The Application, which included 234 pages of evidence;
- 22 • BC Hydro's responses to almost 900 information requests from the BCUC
23 and Intervenors, representing 1,337 pages of evidence;

³² Exhibit B-3, BCUC IR 1.22.2.

³³ Exhibit B-3, BCUC IR 1.20.6.

³⁴ Exhibit B-3, BCUC IR 1.22.3.

³⁵ Exhibit B-15, NMRG IR 3.29.6.

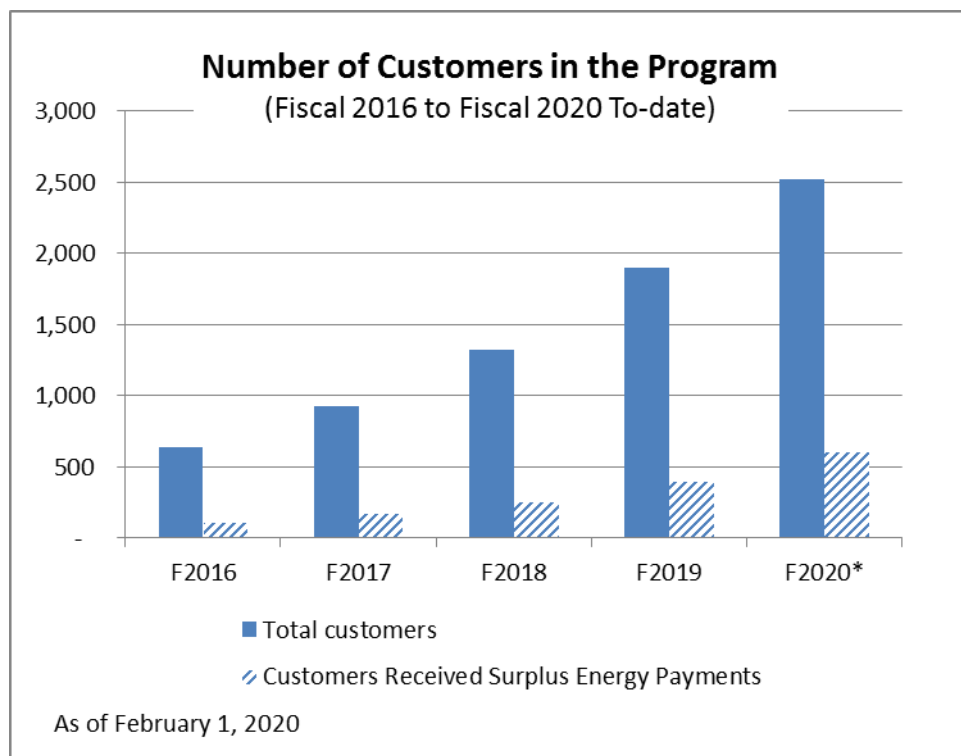
- 1 • Evidence filed by Interveners, which totaled 547 pages;
- 2 • Interveners' responses to over 100 information requests from the BCUC,
- 3 BC Hydro and other Interveners; and
- 4 • BC Hydro's rebuttal evidence.

5 **Part 3 The Relief Sought Ought to be Granted**

6 20. BC Hydro's proposed amendments are interrelated changes to RS 1289 that
7 align with its objectives for the Program. They are not intended to modify the
8 structure of the Program and are not expected to have a material impact on
9 most existing or future Program customers. If approved, the proposed
10 amendments will continue to allow Program customers to offset their
11 consumption and electricity costs, make choices that align with their
12 environmental principles and receive Surplus Energy Payments. Specifically,
13 the proposed amendments will:

- 14 • Provide BC Hydro with the discretion to deny applications for Oversized
15 Generating Facilities;
- 16 • Improve opportunities for customers to offset their load;
- 17 • Reduce cost shifting between participating and non-participating customers
18 with regards to Surplus Energy Payments;
- 19 • Mitigate the impact to existing Program customers by providing time for
20 those customers to plan to adjust; and
- 21 • Maintain Program safety, clarity and simplicity.

1 21. While BC Hydro’s proposed changes to Anniversary Dates have the potential to
 2 benefit all Program customers,³⁶ changes to prevent Oversized Generating
 3 Facilities and update the Energy Price used to calculate Surplus Energy
 4 Payments are not expected to have a material impact on most existing or future
 5 Program customers. This is because the majority of program participants do not
 6 receive a Surplus Energy Payment or receive minimal or inconsistent payments
 7 from year to year.³⁷ This is shown by the Figure below:³⁸



³⁶ Exhibit B-1, page 31.

³⁷ Exhibit B-15, NMRG IR 3.26.2.

³⁸ Exhibit B-15, BCSEA IR 3.27.1.

1 22. As shown in the figure above, the Program is growing. On this basis, BC Hydro
2 makes the following two submissions:

- 3 • First, the interim amendments approved by BCUC Order No. G-100-18 and
4 the amendments proposed in the Application, do not appear to have
5 discouraged customers from participating in the Program.³⁹
- 6 • Second, it is important to make changes now, before Oversized Generating
7 Facilities and cost shifting with regards to Surplus Energy Payments,
8 becomes more widespread.

9 **A. Preventing Oversized Generating Facilities**

10 23. BC Hydro's proposed amendments to prevent Oversized Generating Facilities
11 are described in section 2 of the Application. Specifically, BC Hydro proposes
12 amendments to:

- 13 • Allow customers to size their Generating Facility to have an estimated
14 Annual Energy Output up to 110 per cent of their estimated Annual Load,
15 based on historical load data or other information acceptable to BC Hydro;
- 16 • Clarify that customers may increase the size of their Generating Facility at
17 any time, as their historical load data allows;
- 18 • Allow customers who purchase new equipment, such as an electric
19 vehicle, to increase the size of their Generating Facility by an amount
20 determined by BC Hydro, without requiring additional historical load data;
21 and
- 22 • Exempt Generating Facilities with a capacity size of 5 kW or less from the
23 requirement to have an estimated Annual Energy Output no greater than
24 110 per cent of the customer's estimated Annual Load.⁴⁰

³⁹ Exhibit B-12, pages 1 to 3.

1 24. The amendments seek to:

- 2 • Maintain the original intent of the Program as a load offset program by
3 providing BC Hydro with the discretion to deny applications that propose an
4 Oversized Generating Facility; and
- 5 • Respond to comments received from customers and stakeholders since the
6 2018 Amendment Application⁴¹ by providing additional flexibility.⁴²

7 25. BC Hydro also proposes to update the Energy Price used to determine a
8 customer's Surplus Energy Payment so that it better reflects the value of
9 excess generation to BC Hydro. While updating the Energy Price would limit the
10 cost shifting associated with Surplus Energy Payments, BC Hydro believes that
11 the proposed amendments to prevent Oversized Generating Facilities are
12 required regardless of any changes made to the Energy Price so that the
13 Program is maintained as a load offset program.⁴³

14 26. BC Hydro maintains that the original intent of the Program was to provide
15 customers with the ability to offset their electricity consumption. This has been
16 clearly and consistently stated from the inception of the Program, and has been
17 supported by the BCUC, in several of its directions and decisions. For example:

- 18 • Since the inception of the Program, RS 1289 has included language in the
19 Availability clause that indicates the intent of the Program is for customers
20 to "generate electricity to serve all or part of their electricity requirements".
21 In the Tariff sheets effective March 10, 2004, the Availability clause stated

⁴⁰ Exhibit B-1, page 22.

⁴¹ Exhibit B-1, page 19.

⁴² Exhibit B-1, page 16.

⁴³ Exhibit B-3, BCUC IR 1.5.3.

1 the Program was available to customers: “...*who install a Generating*
2 *Facility to serve all or part of their electricity requirements...*”⁴⁴

- 3 • In Letter No. L-37-03, the BCUC directed BC Hydro to prepare an
4 application for a simple net metering tariff, and that the minimum
5 parameters for the tariff include: “[c]ustomer generation should be limited
6 to own use only at the registered location of the net metering
7 installation.”⁴⁵

- 8 • In BCUC Order No. G-26-04, the BCUC stated:

9 A 50 kW system size is consistent with the intent of net metering
10 to allow individual customers to meet all or a part of their
11 electricity demand... limits to system size are intended to reduce
12 the potential magnitude of cost-shifting to non-participating
13 customers.⁴⁶

- 14 • By BCUC Order No. G-100-18, the BCUC approved the amendments
15 sought in the 2018 Amendment Application on an interim basis, stating:

16 The Panel recognizes the importance of the Net Metering
17 Program as a means to allow customers the opportunity to
18 offset part or all of their load requirements. However, we also
19 share BC Hydro’s concern that there may be a potential cost to
20 non-participating ratepayers if the amount of energy surplus
21 payout continues to increase through the further approval of
22 oversized generating facilities. The Panel therefore agrees with
23 BC Hydro that its proposed amendments to restrict RS 1289 to
24 those customers whose Annual Load meets or exceeds the
25 generating facility’s Annual Energy Output is a potential solution
26 to the problem.⁴⁷

⁴⁴ Exhibit B-7, BCUC IR 2.27.2.

⁴⁵ Exhibit B-1, page 10.

⁴⁶ Exhibit B-1, page 11. Note that by BCUC Order No. G-104-14, the BCUC approved an increase to the capacity limit from 50 kW to 100 kW.

⁴⁷ Exhibit B-1, pages 18 to 19.

- 1 27. Prior to the interim approval of the amendments in the 2018 Amendment
2 Application, RS 1289 did not provide BC Hydro with a mechanism to reject
3 applications proposing an Oversized Generating Facility.⁴⁸ As a result, some
4 Oversized Generating Facilities were accepted into the Program.
- 5 28. Allowing Oversized Generating Facilities results in the Program being more
6 akin to an energy procurement program rather than a load offset program.⁴⁹
7 Accordingly, in response to the growth of the Program, the increase in
8 applications for Oversized Generating Facilities, and the resulting cost shifting
9 to non-participating customers, BC Hydro filed the 2018 Amendment
10 Application, proposing more specific provisions to enforce the Program's
11 original intent.⁵⁰
- 12 29. The requirement to size a Generating Facility so that its estimated Annual
13 Energy Output is no greater than 110 per cent of a customer's estimated
14 Annual Load is an increase from the current interim requirement that estimated
15 Annual Energy Output be equal to or less than a customer's estimated Annual
16 Load.⁵¹ The intent of allowing Annual Energy Output to be up to 110 per cent of
17 Annual Load, instead of 100 per cent of Annual Load, is to allow for moderate
18 customer load growth that may occur after the customer begins generating.⁵²
19 This requirement would only apply to future applicants to the Program and
20 would have no impact on existing customers in the Program.⁵³

⁴⁸ Exhibit B-5, Fort St. John IR 1.1.1.

⁴⁹ Exhibit B-8, BCSEA IR 2.23.1.

⁵⁰ Exhibit B-7, BCUC IR 2.27.2.

⁵¹ Exhibit B-5, Commercial Energy Consumers Association of British Columbia (**CEC**) IR 1.9.1.

⁵² Exhibit B-8, BC Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, Together Against Poverty Society and the Tenant Resource and Advisory Centre (**BCOAPO**) IR 2.16.2.

⁵³ Exhibit B-1, page 22.

- 1 30. The results of the Jurisdictional Review undertaken by BC Hydro indicate that it
2 is common to have requirements that size Generating Facilities according to
3 customer load. Specifically:
- 4 • Three of eight utilities surveyed require Annual Energy Output to match
5 Annual Load; and
 - 6 • Three utilities allow Annual Energy Output up to a certain percent of
7 Annual Load (either 110 per cent or 120 per cent).⁵⁴
- 8 31. BC Hydro proposes fixed capacity factors for different generation types to
9 calculate a Generating Facility's estimated Annual Energy Output.⁵⁵ While the
10 capacity factor for the same type of generation can differ depending on the
11 geographical location of the generating facility due to factors such as on-site
12 conditions, a fixed capacity factor simplifies the application process, provides
13 increased certainty with regards to the Annual Energy Output calculation,
14 minimizes administrative burden and supports a consistent and transparent
15 calculation of Annual Energy Output.⁵⁶
- 16 32. In the Application, BC Hydro proposes exempting Generating Facilities with a
17 capacity size of 5 kW or less from the requirement to have an estimated Annual
18 Energy Output no greater than 110 per cent of the customer's estimated Annual
19 Load.⁵⁷ Approximately half of the applications to the Program have a generating
20 capacity size of less than 5 kW. The 5 kW threshold is intended to balance the
21 objectives of providing a simplified process for a large number of potential
22 customers with small facilities and providing a safeguard against the installation

⁵⁴ Exhibit B-1, page 21.

⁵⁵ The basis for these fixed capacity factors is discussed further in Exhibit B-3, BCUC IR 1.6.1. The proposed capacity factors cover all of the generator types used by current participants in the Program. As discussed further in Exhibit B-7, BCUC IR 2.33.1, BC Hydro is not proposing to include additional language in the tariff to cover potential future proposals for Generating Facilities that utilize emerging technologies.

⁵⁶ Exhibit B-3, BCUC IR 1.6.2.

⁵⁷ Exhibit B-1, page 22.

- 1 of generating facilities that are sized to be significantly greater than a
2 customer's load.⁵⁸
- 3 33. BC Hydro's proposal of a 5 kW exemption threshold was premised on the
4 BCUC's approval of the proposed amendment to the Energy Price. BC Hydro
5 noted that if this change is not approved, the financial impact of an exemption
6 threshold to non-participating ratepayers is potentially greater and would need
7 to be reconsidered.⁵⁹
- 8 34. On the basis of average residential electricity consumption, Canadian Solar
9 Industry Association (**CanSIA**), Peace Energy A Renewable Energy
10 Cooperative (**PEC**) and Riverside Energy Systems (**Riverside Energy**)
11 propose that BC Hydro increase the threshold for exempting Generating
12 Facilities from the requirement to have an estimated Annual Energy Output no
13 greater than 110 per cent of the customer's estimated Annual Load from 5 kW
14 to 10 kW.⁶⁰
- 15 35. Both CanSIA and Riverside Energy noted that amending the Energy Price so
16 that it better reflects the value of excess generation to BC Hydro would mitigate
17 the implications of an increased threshold (i.e., 10 kW) with regards to
18 maintaining the load offset intent of the Program and avoiding cost impacts to
19 non-participating customers.
- 20 36. BC Hydro agrees with the observations of CanSIA, PEC and Riverside Energy
21 that have been referenced above, with regards to an increased exemption
22 threshold. Provided that the BCUC approves BC Hydro's proposed amendment
23 to the Energy Price, BC Hydro is amenable to an exemption threshold of
24 10 kW.

⁵⁸ Exhibit B-5, BCOAPO IR 1.6.1.

⁵⁹ Exhibit B-1, page 22.

⁶⁰ Refer to Exhibits C7-4, C13-5 and C24-3.

1 37. BC Hydro's proposed amendments to prevent Oversized Generating Facilities
2 are reasonable and should be approved by the BCUC. These amendments
3 maintain the original intent of the Program as a load offset Program while
4 providing flexibility to respond to changing customer needs.

5 **B. Optimizing Customer Anniversary Dates**

6 38. BC Hydro's proposed amendments to optimize customer Anniversary Dates are
7 described in section 3 of the Application.

8 39. BC Hydro proposes amendments that would assign customers a default
9 Anniversary Date of March 1⁶¹ and provide customers with the opportunity to
10 choose their own Anniversary Date once.⁶²

11 40. When customers generate more electricity than they need at a point in time,
12 that electricity is banked in the customer's Generation Account. The Generation
13 Account Balance in the customer's Generation Account is applied as a credit to
14 offset electricity consumption later, when the customer does not generate
15 enough electricity to meet their needs and requires electricity from BC Hydro.
16 Once every 12 months, if a customer has credits remaining at their Anniversary
17 Date, they receive a Surplus Energy Payment at the Energy Price.⁶³

18 41. Currently, a customer's Anniversary Date is the end of the sixth (or twelfth)
19 billing period following the date the customer commences taking service under
20 RS 1289. Depending on the timing of a customer's Anniversary Date, their
21 Generation Account Balance may be cleared through a Surplus Energy

⁶¹ As explained in Exhibit B-1, page 31, March 1st is an optimized Anniversary Date for customers with solar photovoltaic Generating Facilities which is the type of Generating Facility installed by the vast majority of customers in the Program.

⁶² Exhibit B-1, page 31.

⁶³ Exhibit B-1, page 24.

1 Payment, before they are able to apply that balance to reduce the energy they
2 purchase from BC Hydro.⁶⁴

3 42. BC Hydro's proposed amendments to optimize customer Anniversary Dates will
4 benefit all customers in the Program by providing them with increased
5 opportunities to apply their Generation Account Balance to reduce the energy
6 they purchase from BC Hydro. Assuming that the Energy Price is less than the
7 rate paid by the customer under their applicable Rate Schedule, an optimized
8 Anniversary Date allows the customer to maximize their financial benefit from
9 the Program.⁶⁵

10 43. The proposed amendments allow a customer to change their Anniversary Date
11 once. This is consistent with the intent of the Program to provide a simple way
12 for customers to offset their load. If customers were able to change their
13 Anniversary Date on multiple occasions, they would likely do so when the
14 Energy Price exceeds the rate they are charged under their applicable Rate
15 Schedule. This would encourage customers to use the Program as a way to
16 generate revenue from the sale of electricity to BC Hydro, rather than to offset
17 their load. In BC Hydro's view, this is counter to the intent of the Program.⁶⁶

18 44. BC Hydro's Jurisdictional Review found that four of the eight utilities surveyed
19 either allow customers to select their Anniversary Date or have Anniversary
20 Dates that are optimized for customers in the Program.⁶⁷

⁶⁴ Exhibit B-1, page 25.

⁶⁵ Exhibit B-5, BCCSC IR 1.6.2. For an example calculation, please refer to Exhibit B-5, CEC IR 1.10.1.

⁶⁶ Exhibit B-7, BCUC IR 2.28.1.

⁶⁷ Exhibit B-1, page 29.

1 **C. Updating the Energy Price to Reflect its Value to BC Hydro**

2 45. BC Hydro's proposed amendments to update the Energy Price are described in
3 section 4 of the Application.

4 46. BC Hydro proposes amendments that would set the Energy Price used to
5 determine a customer's Surplus Energy Payment every January 1st by
6 calculating the average of the daily average Mid-C market prices over the
7 previous calendar year, converted to Canadian dollars using the average
8 annual exchange rate from the Bank of Canada for that year.⁶⁸

9 47. The BCUC previously found that the Energy Price should reflect the value that
10 BC Hydro receives from excess generation from customers in the Program. In
11 Order No. G-26-04, the BCUC stated:

12 The Commission believed that the potential for cost-shifting
13 would be limited by the low expected participation and the
14 50 kW limit on generation capacity. However, given the
15 expected low uptake and a 50 kW limit, the Commission
16 believed it was a fair and acceptable trade-off against potential
17 cost-shifting for BC Hydro to propose a rate for purchase of net
18 excess generation at an anniversary date of net metering
19 service interconnection. The Commission considered that it
20 would be fair if net metering customers were compensated for
21 the value BC Hydro receives from net excess generation.
22 [emphasis added]

23 48. If the Energy Price paid to the customer is greater than the value BC Hydro
24 receives from excess generation, then BC Hydro does not fully recover its costs
25 and the Surplus Energy Payments cause cost shifting to non-participating
26 customers.⁶⁹

⁶⁸ Exhibit B-1, page 39.

⁶⁹ Exhibit B-3, BCUC IR 1.5.1. In Exhibit B-8, CEC IR 2.27.1, BC Hydro provided calculations showing the cost shifting to non-participating customers that has occurred through Surplus Energy Payments as a result of the current Energy Price.

1 49. The Energy Price has historically been consistent with the price paid under BC
2 Hydro's Standing Offer Program (**SOP**). As the SOP has been indefinitely
3 suspended, the SOP price should no longer be used as a basis for the Energy
4 Price and the Energy Price should be re-evaluated and updated to align with
5 the value BC Hydro receives from net excess generation.⁷⁰

6 50. In BC Hydro's view, the current Energy Price of 9.99 cents per kWh is too high
7 and is outdated. The current Energy Price should be updated because it:

- 8 • Overvalues, on average, the energy delivered to BC Hydro, promoting
9 customer behaviour that is counter to the load offset purpose of the
10 Program;⁷¹ and
- 11 • Is inconsistent with BC Hydro's current interim assumption for evaluating
12 energy during surplus and deficit periods.⁷²

13 51. BC Hydro submits that the proposed update to the Energy Price would improve
14 fairness between participating and non-participating customers because it
15 would provide compensation to customers in the Program, at a price that
16 reflects the value of the energy to non-participating customers.⁷³ BC Hydro
17 further submits that the appropriate value for the Energy Price is the market
18 value (i.e., the price that BC Hydro can sell the energy for on the wholesale
19 market).⁷⁴ In calendar 2018, BC Hydro's proposed approach would have
20 resulted in an Energy Price of 3.99 cents per kWh.⁷⁵

21 52. In BC Hydro's view, the market value is the appropriate value for excess
22 generation from customers in the Program, for the following five reasons:

⁷⁰ Exhibit B-3, BCUC IR 1.10.1.

⁷¹ Exhibit B-3, BCUC IR 1.13.1.

⁷² Exhibit B-3, BCUC IR 1.10.5.

⁷³ Exhibit B-1, page 33.

⁷⁴ Exhibit B-1, pages 34 to 35.

⁷⁵ Exhibit B-1, page 40.

- 1 • First, BC Hydro is currently in an energy surplus period and does not
2 project the need for new energy resources for many years.⁷⁶
- 3 • Second, even if BC Hydro had a need for new energy resources, the
4 potential energy contribution from customers in the Program has not been
5 sufficiently large to include in BC Hydro's long-term planning.⁷⁷
- 6 • Third, even if the potential energy contribution from customers in the
7 Program was included in BC Hydro's long-term planning, BC Hydro
8 adopted the market price as a conservative interim assumption for
9 evaluating energy during surplus and deficit periods⁷⁸ and uses a forecast
10 market price with adjustments for evaluating energy for the renewal of
11 electricity purchase agreements.⁷⁹
- 12 • Fourth, excess generation from customers in the Program does not have
13 attributes that would warrant a premium value over the market price.
- 14 ▶ Under the terms of RS 1289, customers in the Program are not
15 obligated to generate electricity.⁸⁰
- 16 ▶ The electricity that is generated is intermittent, infrequent and non-firm
17 and cannot be accurately forecasted, planned or operationalized.⁸¹
- 18 ▶ In aggregate, excess generation from customers in the Program does
19 not provide capacity benefits⁸² and to-date, BC Hydro has not been
20 able to defer any infrastructure upgrades as a result of the Program.⁸³

⁷⁶ Exhibit B-1, BCUC IR 1.10.2.

⁷⁷ Exhibit B-1, BCUC IR 1.10.2.

⁷⁸ Exhibit B-3, BCUC IR 1.10.2.

⁷⁹ Exhibit B-5, BCSEA IR 1.9.9.1.

⁸⁰ Exhibit B-8, City of Fort St. John IR 2.5.1.

⁸¹ Exhibit B-5, NMRG IR 1.4.1.

⁸² Exhibit B-3, BCUC IR 1.11.2 and Exhibit B-8, NMRG IR 2.19.2.

⁸³ Exhibit B-5, NMRG IR 1.6.2.

- 1 ▶ Hydro generation from customers in the Program does not provide the
2 same flexibility and storage capabilities as BC Hydro’s heritage
3 assets.⁸⁴
- 4 ▶ In general, energy received from customers in the Program in rural
5 areas is not a viable solution for power quality issues⁸⁵ and BC Hydro
6 expects that it would have a negligible, if any, impact with regards to
7 energy security, disaster risk reduction, pressure on infrastructure,
8 greenhouse gas emissions, climate change related issues, service
9 during outages, and support for black start operations, voltage and
10 frequency regulation.⁸⁶
- 11 ▶ While net metering generation may provide the individual customer
12 with emergency back-up power, it is not a viable solution for providing
13 emergency back-up power to the grid and therefore, would not provide
14 reliability benefits to other ratepayers.⁸⁷
- 15 • Fifth, the historical Energy Price values using BC Hydro’s proposed
16 approach,⁸⁸ are more closely aligned with BC Hydro’s cost of energy.
17 BC Hydro’s forecast average weighted cost of energy for fiscal 2020 (not
18 including operations and maintenance costs for BC Hydro heritage assets)
19 is 3.52 cents per kWh⁸⁹ and BC Hydro’s average cost of energy from its
20 fiscal 2016 Fully Allocated Cost of Service study was 3.1 cents per KWh.⁹⁰

⁸⁴ Exhibit B-8, NMRG IR 2.19.6.

⁸⁵ Exhibit B-5, NMRG IR 1.6.1

⁸⁶ Exhibit B-5, BCCSC IR 1.5.6.

⁸⁷ Exhibit B-12, pages 3 to 5.

⁸⁸ Exhibit B-5, BCSEA IR 1.11.2 provides the historical Energy Price values using BC Hydro’s proposed approach.

⁸⁹ Exhibit B-3, BCUC IR 1.9.2.

⁹⁰ Exhibit B-3, BCUC IR 1.5.2.

- 1 53. While the unit cost of energy to serve the Non-Integrated Areas (**NIA**) is much
2 higher than the market value,⁹¹ RS 1289 is a postage stamp rate.⁹² Considering
3 the current challenges⁹³ as well as the current number of customers in the
4 Program in the NIAs,⁹⁴ BC Hydro submits that it is appropriate to use the same
5 Energy Price for customers in the NIAs, as for customers connected to the
6 integrated system, at the present time.
- 7 54. BC Hydro's Jurisdictional Review indicates that most utilities surveyed either do
8 not provide Surplus Energy Payments or have an Energy Price that reflects the
9 market value. BC Hydro also conducted additional research which identified a
10 number of other utilities in Canada and the United States that currently credit
11 net excess generation from net metering customers at an avoided cost or
12 market price.⁹⁵
- 13 55. BC Hydro proposes to determine the Energy Price every January 1st by
14 calculating the average of the daily average Mid-C market prices over the
15 previous calendar year, which is a weighted average of light and heavy load
16 hour prices.⁹⁶ BC Hydro proposes to use a historical average market price,
17 rather than a forecast, because the Energy Price applies to energy already
18 received by BC Hydro.⁹⁷
- 19 56. There are precedents for relying upon the Mid-C index price, which was
20 approved by the BCUC on numerous occasions as an appropriate proxy for
21 market value.⁹⁸

⁹¹ Exhibit B-5, BCSEA IR 1.14.6.

⁹² Exhibit B-3, BCUC IR 1.6.12 and Exhibit B-15, NMRG IRs 3.29.1 and 3.29.3

⁹³ Exhibit B 5, BCSEA IR 1.14.10.

⁹⁴ Exhibit B-8, BCOAPO IRs 2.29.1 and 2.29.2.

⁹⁵ Exhibit B-15, NMRG IR 3.29.6.

⁹⁶ Exhibit B-3, BCUC IR 1.12.1.

⁹⁷ Exhibit B-5, CEC IR 1.15.2.

⁹⁸ Exhibit B-12, NMRG IR 3.29.4.

1 57. It is necessary to use an average to determine the Energy Price because the
2 existing Generation Account banking mechanism does not allow BC Hydro to
3 determine the exact times within a given year that a customer contributed
4 towards their excess generation. BC Hydro provided calculations demonstrating
5 that an Energy Price based on the annual average Mid-C price for the most
6 recent calendar year provides a reasonable approximation of the value of both
7 solar photovoltaic generation and hydro generation, especially when
8 considering that a customer's Generation Account Balance is first applied
9 against subsequent bill(s), at the customer's tariffed rate so that the Energy
10 Price only applies to the remaining Generation Account Balance at the
11 customer's Anniversary Date.⁹⁹

12 58. While BC Hydro incurs costs to sell electricity into the Mid-C market, such as
13 line losses and wheeling charges, BC Hydro is not proposing to adjust the
14 Energy Price to account for these costs. This approach recognizes the BCUC's
15 previous determinations that the Program should be simple and that limited
16 cost-shifting is warranted to support the implementation of net metering.¹⁰⁰

17 **D. Transitional Energy Price Balances Fair Apportionment of**
18 **Costs and Rate Stability**

19 59. BC Hydro's proposed Transitional Energy Price is described in section 6 of the
20 Application. The purpose of the proposed Transitional Energy Price is to
21 provide existing customers in the Program with notice of the change to the
22 Energy Price that reduces the impact of the change to those customers.¹⁰¹

23 60. BC Hydro proposes to maintain the current Energy Price of 9.99 cents per kWh
24 for five years for customers with accepted applications as of April 20, 2018.¹⁰²

⁹⁹ Exhibit B-3, BCUC IR 1.12.4; Exhibit B-8, BCOAPO IR 2.22.2; Exhibit B-8, BCOAPO IR 2.22.3.

¹⁰⁰ Exhibit B-1, page 39.

¹⁰¹ Exhibit B-3, BCUC IR 1.15.6.1.

¹⁰² Exhibit B-1, page 44.

1 61. BC Hydro is not proposing to provide the Transitional Energy Price to
2 customers accepted into the Program after April 20, 2018. While offering the
3 Transitional Energy Price to customers who have been accepted into the
4 Program prior to April 29, 2019 would make it available to a broader group of
5 existing customers, it would also result in further cost-shifting to
6 non-participating customers and, in BC Hydro's view, is not necessary.¹⁰³

7 Customers accepted into the Program after April 20, 2018 have Generating
8 Facilities sized to reflect their Annual Load, in accordance with the interim
9 amendments approved by BCUC Order No. G-100-18. As a result, those
10 customers are likely to receive minimal Surplus Energy Payments going
11 forward.¹⁰⁴

12 62. BC Hydro submits that the five-year transition period strikes the right balance
13 between a fair apportionment of costs between participating and
14 non-participating customers and rate stability for impacted customers. In past
15 decisions, the BCUC recognized a need to soften the financial impacts to
16 customers of changes to rates.¹⁰⁵ BC Hydro provided calculations showing that
17 a five-year transition period does not represent an undue burden on
18 non-participating customers.¹⁰⁶

19 63. BC Hydro further submits that a transition period longer than five-years or
20 maintaining the current Energy Price for existing customers on a permanent
21 basis would create an undue burden for non-participating customers and is not
22 necessary.¹⁰⁷ When the BCUC approved changes to FortisBC's energy price

¹⁰³ Exhibit B-7, BCUC IR 2.32.1.

¹⁰⁴ Exhibit B-3, BCUC IR 1.1.1.

¹⁰⁵ Exhibit B-3, BCUC IR 1.15.1 and Exhibit B-7, BCUC IR 2.32.2.

¹⁰⁶ Exhibit B-3, BCUC IR 1.15.4.1.

¹⁰⁷ Exhibit B-3, BCUC IR 1.15.1 and Exhibit B-5, BCSEA IR 1.13.6.

1 under its net metering tariff, no transitional provisions were provided for existing
2 customers.¹⁰⁸

3 64. While it is possible to phase-in the difference between the current Energy Price
4 and the proposed Energy Price, BC Hydro decided to propose a five-year
5 Transitional Energy Price instead. Phasing-in the difference would result in a
6 more immediate impact to existing customers in the Program and would be
7 more complicated to administer.¹⁰⁹

8 **E. Improve Program Clarity and Simplicity and Maintain Safety**

9 65. BC Hydro's proposed minor amendments to RS 1289 to improve clarity and
10 simplicity, to maintain the safety of the Program and to reflect existing Program
11 practices, are set out in section 5 of the Application.

12 66. BC Hydro proposes minor amendments that will:

- 13 • Help prevent unknown or unauthorized connections that may cause safety
14 issues for customers, employees or the public during outages and normal
15 operations, by clarifying that generation connections are not permitted
16 except through an interconnection agreement or through the Program;
- 17 • Avoid customer confusion regarding the Program meter requirements by
18 clarifying that the Program is only available to customers with a smart meter
19 (including a radio off smart meter);
- 20 • Allow BC Hydro to terminate and reject applications in certain
21 circumstances (for example, accommodating the connection would trigger
22 substantial costs not recoverable under RS 1289 or would create safety
23 risks and/or system operational constraints; or the customer's application
24 has been inactive for 18 months and the data cannot be properly assessed
25 by BC Hydro because it is not current); and

¹⁰⁸ Exhibit B-5, BCCSC IR 1.6.23.

¹⁰⁹ Exhibit B-5, BCOAPO IR 1.11.1.

- 1 • Make minor updates to the language and organization of RS 1289 to reflect
2 BC Hydro’s current Program administration practices and improve the clarity
3 and readability of RS 1289 (for example including a “Definitions” section and
4 providing greater clarity regarding the application and approval process).¹¹⁰

5 **F. Proposed Amendments Are Just, Reasonable and Not Unduly**
6 **Discriminatory or Preferential**

7 67. Net Metering Service, RS 1289, is a postage stamp rate.¹¹¹ A rate under
8 section 1 of the UCA is defined as including:

- 9 (a) a general, individual or joint rate, fare, toll, charge, rental or other
10 compensation of a public utility,
11 (b) a rule, practice, measurement, classification or contract of a public
12 utility or corporation relating to a rate, and
13 (c) a schedule or tariff respecting a rate.

14 68. BC Hydro maintains that enrollment in the Program does not entail a
15 contractual agreement with BC Hydro¹¹² or a guaranteed rate¹¹³ that is
16 incapable of amendment.

17 69. In BC Hydro’s 2007 Rate Design Application, the BCUC considered customer
18 arguments that the E-Plus rate was akin to a contract with BC Hydro that was
19 immune from amendment. The BCUC stated:

20 The Commission Panel has considered the arguments
21 concerning the Commission’s jurisdiction over the E-Plus rates.
22 The Commission Panel is not persuaded by the E-Plus Group’s
23 argument that its members have “contracts” with BC Hydro that
24 the Commission has limited jurisdiction to abrogate, or that
25 those contracts are everlasting in nature with a guaranteed price
26 cap. Commission Orders No. G-24-87 and No. G-21-92 do not
27 reference “contracts.” They do reflect the application of the

¹¹⁰ Exhibit B-1, p. 41-44.

¹¹¹ Exhibit B-3, BCUC IR 1.6.12.

¹¹² Exhibit B-3, BCUC IR 1.15.5.

¹¹³ Exhibit B-3, CEC IR 1.21.1.

1 Commission's statutory jurisdiction over rates. Section 59(4) of
2 the UCA makes it clear that it is a question of fact, of which the
3 Commission is sole judge as to whether a rate is unjust,
4 unreasonable or unduly discriminatory. The Commission Panel
5 agrees with BC Hydro that section 64 of the UCA does not apply
6 in a situation where service has been provided from the outset
7 under rate schedules filed in accordance with the UCA. The
8 Commission Panel will make no findings as to the nature of the
9 commercial relationship that may exist between BC Hydro and
10 its E-Plus customers.

11 The Commission Panel is of the opinion that it had the
12 jurisdiction to find Rate Schedules 1105 and 1205 to be in the
13 public interest in 1987, to amend them in the public interest in
14 1992, and that that jurisdiction remains.

15 The Commission Panel has considered the E-Plus Group's
16 submission that "the E-Plus was a permanent program" and
17 finds that, while the Residential and General Service Dual Fuel
18 Interruptible Electric Service Agreements have no specific
19 termination date, the Rate Schedules themselves are subject to
20 Commission jurisdiction and as such cannot be everlasting.
21 Pursuant to the statutory powers given to it under the UCA, it is
22 for the Commission, and not for a public utility and its
23 customers, to determine rates that are just, reasonable and not
24 unduly discriminatory.

25 The Commission Panel has also considered the evidence and
26 submissions concerning the E-Plus customers' investment in
27 backup facilities and whether they have earned a return on and
28 of that investment. Although the Commission Panel finds the
29 evidence inconclusive, the Commission Panel does not find the
30 question to be determinative, as the Rate Schedules before the
31 Commission have never made reference to the customers'
32 investment or their need to earn a return on and of it....¹¹⁴

33 70. Similarly, BC Hydro submits that RS 1289 is a variable rate that the BCUC has
34 the jurisdiction to amend and there is nothing in RS 1289 that references

¹¹⁴ BCUC 2007 Rate Design Application Decision, pages 133 to 134.

1 customer investments in Generating Facilities or guarantees customers a return
2 on their investments.

3 71. BC Hydro considers that Program customers do not have a reasonable
4 expectation that the Program terms, including the Energy Price, will not change.
5 For example, the Energy Price has changed twice since the start of the
6 Program in 2004.¹¹⁵ Further, BC Hydro has made no representations that the
7 Energy Price or other aspects of the Program would be maintained indefinitely
8 and has not provided assurance that Program customers recover their capital
9 investments.¹¹⁶

10 72. When a customer takes electric service from BC Hydro, the rights and
11 responsibilities of BC Hydro and the Customer are set out in the applicable
12 provisions of the Terms and Conditions of the *BC Hydro Electric Tariff* and any
13 applicable rate schedule(s) and Electric Tariff Supplement(s). Section 6.1.1 of
14 the BC Hydro Electric Tariff states:

15 6.1.1 Application of Rate Schedules

16 The rates to be charged by and paid to BC Hydro for
17 Service will be the rates set out in the Rate Schedules
18 from time to time in effect or elsewhere in the Electric
19 Tariff, available at www.bchydro.com or upon request.
20 [Emphasis added]¹¹⁷

21 73. The BCUC's rate setting function is governed by sections 58 to 60 of the UCA,
22 which provides the BCUC with the authority to determine whether a rate is just,
23 reasonable, and not unduly discriminatory, or preferential.

¹¹⁵ Exhibit B-3, CEC IR 1.21.1.

¹¹⁶ Exhibit B-3, BCUC IR 1.15.5.

¹¹⁷ Exhibit B-5, CEC IR 1.21.1.

1 74. The BCUC has held that the rate design criteria outlined in Bonbright's
2 *Principles of Public Utility Rates (Bonbright Criteria)*¹¹⁸ form an appropriate
3 foundation for rate structures as they are consistent with the requirement under
4 the UCA that rates be just, reasonable and not unduly discriminatory.¹¹⁹

5 75. The Bonbright principles for rate design as referenced by the BCUC in Order
6 No. G-45-11 regarding BC Hydro's Residential Inclining Block Rate Re-Pricing
7 Application include the following:

8 Principle 1: Recovering the Cost of Service; the aggregate of all
9 customer rates and revenues must be sufficient to
10 recover the utility's total cost of service

11 Principle 2: Fair appointment of costs among customers
12 (appropriate cost recovery should be reflected in rates)

13 Principle 3: Price signals that encourage efficient use and
14 discourage inefficient use

15 Principle 4: Customer understanding and acceptance

16 Principle 5: Practical and cost-effective to implement (sustainable
17 and meet long-term objectives)

18 Principle 6: Rate Stability (customer rate impact should be
19 managed)

20 Principle 7: Revenue stability

21 Principle 8: Avoidance of undue discrimination (interclass equity
22 must be enhanced and maintained)

¹¹⁸ James C. Bonbright, *Principles of Public Utility Rates* (1st Edition; Columbia University Press: New York, 1961), page 291.

¹¹⁹ Refer to the BCUC's Reasons for Decision to Order No. G-124-08 regarding BC Hydro's Residential Inclining Block Rate Application, dated September 24, 2008, page 51.

1 76. BC Hydro evaluated the proposed amendments to the Energy Price against all
2 eight of the Bonbright Criteria.¹²⁰ The table below supplements that evaluation
3 to include the proposed amendments to prevent Oversized Generating
4 Facilities and optimize customer Anniversary Dates.

Bonbright Principle Referenced in BCUC Order No. G-45-11	Alignment of Proposed Amendments
Principle 1: Recovering the Cost of Service (the aggregate of all customer rates and revenues must be sufficient to recover the utility's total cost of service)	The aggregate of all customer rates and revenues would continue to be sufficient to recover BC Hydro's total cost of service.
Principle 2: Fair appointment of costs among customers (appropriate cost recovery should be reflected in rates)	<ul style="list-style-type: none"> • The proposed change to the Energy Price is aligned with Principle 2 because it would reflect the value BC Hydro receives from net excess generation. • The proposed change to prevent Oversized Generating Facilities would reduce the amount of net excess generation from a small number of Program customers. <p>Accordingly, these two changes would address the cost-shifting associated with Surplus Energy Payments and reflect fair appointment of costs among customers with regards to the purchase of net excess generation from customers in the Program.</p>
Principle 3: Price signals that encourage efficient use and discourage inefficient use	<ul style="list-style-type: none"> • The proposed change to prevent Oversized Generation Facilities is aligned with Principle 3 as it encourages the customer to offset load and reduces net excess generation which, as described in paragraph 52 above, does not have a premium value to BC Hydro. • The proposed change to the Anniversary Date satisfies Principle 3 as it allows customers to more efficiently offset their load. • The proposed change to the Energy Price is aligned with Principle 3 because it sends a price signal that would reflect the value BC Hydro receives from net excess generation.

¹²⁰ Exhibit B-3, BCUC IRs 1.9.1 and 1.9.3.

Bonbright Principle Referenced in BCUC Order No. G-45-11	Alignment of Proposed Amendments
Principle 4: Customer understanding and acceptance	<ul style="list-style-type: none"> • The proposed change to prevent Oversized Generating Facilities is aligned with Principle 4 as it reinforces customer understanding of the Program as a load offset program. • The proposed change to the Anniversary Date aligns with Principle 4 as it is expected to allow all Program customers an equal opportunity to optimize their load offset, which should facilitate customer acceptance. • The proposed change to the Energy Price is aligned with Principle 4 because the proposed methodology for establishing the Energy Price is relatively simple and transparent, as compared to alternatives such as establishing the Energy Price based on a forecast. • The proposed Transitional Energy Price is aligned with Principle 4 because it should encourage customer acceptance of the proposed change to the Energy Price. • The other proposed changes to RS 1289 add clarity and simplicity to the Program to improve customer understanding.
Principle 5: Practical and cost-effective to implement (sustainable and meet long-term objectives)	<ul style="list-style-type: none"> • The proposed change to prevent Oversized Generating Facilities satisfies Principle 5 because it maintains the Program's load offset intent and includes an exemption threshold to eliminate the Annual Load review for Program customers installing small Generating Facilities. • The proposed changes to allow customers to increase the size of their Generating Facility in the future if their load grows or they purchase new equipment (e.g., electric vehicle) satisfy Principle 5 because they are practical for customers and, this flexibility renders the changes sustainable. • The proposed change to the Anniversary Date is aligned with Principle 5 because it is practical to administer and is aligned with the Program's load offset Objective. • The proposed change to the Energy Price is aligned with Principle 5 because it is practical and cost effective to implement. The proposed process to calculate the Energy Price is easily understood and uses readily available historical pricing information.

Bonbright Principle Referenced in BCUC Order No. G-45-11	Alignment of Proposed Amendments
Principle 6: Rate Stability (customer rate impact should be managed)	<ul style="list-style-type: none"> The proposed change to the Energy Price is aligned with Principle 6 because it appropriately balances rate stability against the objective of reflecting the value of the energy to non-participating customers. BC Hydro's proposed Transitional Energy Price¹²¹ is aligned with Principle 6 because it mitigates the impact to existing customers in the Program. As the Program is growing, making these amendments while the Program is small is expected to limit future rate impacts on a larger number of customers
Principle 7: Revenue stability	<ul style="list-style-type: none"> The proposed changes to prevent Oversized Generating Facilities and update the Energy Price do not impact the revenue earned by BC Hydro.¹²² The proposed changes to optimize customer Anniversary Dates are expected to have a minimal impact domestic revenue.¹²³
Principle 8: Avoidance of undue discrimination (interclass equity must be enhanced and maintained)	<ul style="list-style-type: none"> The proposed change to the Energy Price is aligned with Principle 8 because it is a step towards improving cost recovery from customers in the Program.

1 77. As indicated in the table above, BC Hydro considers that the proposed
 2 amendments are aligned with the Bonbright Criterial. In particular, the proposed
 3 amendment to the Energy Price aligns with Principles 2 and 8 because the
 4 change to the Energy Price reduces cost shifting to non-participants associated
 5 with Surplus Energy Payments. This reflects fairness in the apportionment of
 6 costs among customers. The proposed Energy Price amendment also aligns
 7 with Principle 3 as it sends Program participants a clear message about the
 8 value of net excess generation to BC Hydro. BC Hydro further considers that
 9 the proposed amendment to the Energy Price is aligned with Principle 6¹²⁴ as it

¹²¹ Refer to Part 3, Section D for BC Hydro's Final Submissions with regards to the Transitional Energy Price.

¹²² Exhibit B-5, BCCSC IR 1.6.10.

¹²³ Exhibit B-1, page 5, Table 1 and Note 2.

¹²⁴ Exhibit B-3, BCUC IR 1.12.6.1.

1 appropriately balances rate stability against reflecting the value of the energy to
2 non-participating customers. The proposed Transitional Energy Price is also
3 consistent with Principle 6 because it mitigates the impact of the updated
4 Energy Price on existing Program customers.¹²⁵

5 78. Section 59(2)(b) of the UCA prohibits a public utility from extending a “form of
6 agreement, rule or a facility or privilege” that is not “uniformly extended to all
7 persons under substantially similar circumstances.”

8 79. BC Hydro submits that if the proposed amendments to the Energy Price and
9 Transitional Energy Price are not granted, it would be contrary to the UCA’s
10 prohibition on preferential and discriminatory rates. Specifically:

- 11 • BC Hydro submits that not updating the Energy Price would be contrary to
12 the UCA’s prohibition on preferential and discriminatory rates as it would
13 allow a minority of Program customers to receive Surplus Energy
14 Payments that compensate them for their net excess generation at a rate
15 far in excess of the value of that energy to BC Hydro and customers.
- 16 • Only a small number of Program customers have Oversized Generating
17 Facilities and receive material Surplus Energy Payments.¹²⁶ BC Hydro
18 submits that these customers should not receive a rate preference that is
19 not available to the majority of current and future Program participants.
- 20 • BC Hydro considers that it would be contrary to the UCA to indefinitely
21 permit current Program customers to receive the Transitional Energy Price
22 as this would discriminate against future Program customers who would
23 be ineligible for the same price and against non-participants who would
24 bear the costs of overvaluing any net excess generation.

¹²⁵ Exhibit B-3, BCUC IR 1.9.1.

¹²⁶ Exhibit B-15, BCSEA IR 3.27.1.

1 80. As discussed in paragraph [26](#) above, the Program is intended to allow
2 customers to offset their load. BC Hydro submits that failure to limit Oversized
3 Generating Facilities would be inconsistent with the intent of the Program and
4 would not be just or reasonable within the meaning of section 59 of the UCA.

5 **Part 4 Summary of Commitments**

6 81. During the course of this proceeding, BC Hydro made a number of
7 commitments which are set out below.

8 82. First, BC Hydro committed to consider trends in distributed energy resources
9 and review BC Hydro's assumptions with regards to the growth and inclusion of
10 Net Metering in resource planning as part of the next Integrated Resource
11 Plan.¹²⁷

12 83. Second, BC Hydro indicated that it is amenable to filing a Net Metering
13 Evaluation Report by February 2021 that includes an analysis of cost shifting to
14 non-participants resulting from the Program.¹²⁸ BC Hydro proposes to file this
15 evaluation report by the end of October 2020 so that the report may inform
16 BC Hydro's next Integrated Resource Plan¹²⁹ and any future amendments to
17 the Program.

18 84. Third, BC Hydro will consider potential amendments to improve cost recovery
19 from Program participants and to reflect potential benefits from the Program, as
20 necessary, for a future application.¹³⁰

¹²⁷ Exhibit B-3, BCUC IR 1.18.4.

¹²⁸ Exhibit B-1, BCUC IR 1.5.1 explains that cost-shifting occurs when BC Hydro's cost of service is not fully recovered from customers in the Program, which results in non-participating customers bearing any unrecovered costs. It sets out the ways that cost-shifting occurs and explains that the amendments proposed in the Application are only intended to address cost-shifting that occurs between participating and non-participating customers with regards to Surplus Energy Payments.

¹²⁹ Exhibit B-7, BCUC IR 2.25.1.

¹³⁰ Exhibit B-1, page 50.

1 BC Hydro notes that some of the letters of comment suggest that in this
2 proceeding, the BCUC should consider BC Hydro's resource plans in respect of
3 net metering as compared to other resource options. BC Hydro respectfully
4 submits that these matters are outside the scope of this proceeding and that the
5 appropriate place to consider BC Hydro's resource plans in respect of net
6 metering is the proceeding for BC Hydro's 2021 Integrated Resource Plan.

7 **Part 5 Conclusion**

8 85. For the reasons set out above, BC Hydro submits that the proposed
9 amendments sought in the Application are reasonable, supported by extensive
10 evidence and should be approved by the BCUC. The amendments will:

- 11 • Maintain the Program as a load offset program and improve opportunities
12 for customers to offset their electricity consumption;
- 13 • Improve fairness between participating and non-participating customers by
14 reducing cost-shifting associated with Surplus Energy Payments;
- 15 • Provide existing customers most likely to be impacted by the change in
16 Energy Price with a five-year transition period to mitigate the impact of the
17 change; and
- 18 • Improve the clarity and simplicity of RS 1289 and better reflect existing
19 Program practices.

20 86. The specific relief requested by BC Hydro in the Application is set out in the
21 draft Final Order attached as Appendix A of the Application. BC Hydro
22 respectfully requests that it be approved as filed.

1 ALL OF WHICH IS RESPECTFULLY SUBMITTED FEBRUARY 27, 2020

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3 Per: 

4 Nicole Prior,

5 Solicitor & Counsel,

6 British Columbia Hydro and Power Authority