



ORDER NUMBER
G-194-17

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

E-Plus Homeowners Group
Application for Reconsideration and Variance of Order G-5-17
in the matter of the British Columbia Hydro and Power Authority 2015 Rate Design Application

BEFORE:

D. M. Morton, Commissioner/Panel Chair
D. A. Cote, Commissioner
K. A. Keilty, Commissioner

on December 19, 2017

ORDER

WHEREAS:

- A. On February 19, 2017, the E-Plus Homeowners Group (EPHG) filed an application with the British Columbia Utilities Commission (Commission) for reconsideration and variance of parts of Directive 2 of Order G-5-17 dealing with the residential E-Plus rate, pursuant to section 99 of the *Utilities Commission Act* (UCA) (Reconsideration Application);
- B. On January 20, 2017, the Commission issued Order G-5-17 and the accompanying decision in the matter of the British Columbia Hydro and Power Authority (BC Hydro) 2015 Rate Design Application. Directive 2 of Order G-5-17 states:

BC Hydro is directed to phase out the Residential E-Plus rate program over five years, commencing April 1, 2017. BC Hydro is directed to submit a compliance filing within 30 days of the date of this decision which outlines a proposal for achieving the five-year phase-out period of the E-Plus program and which results in rates being charged to E-Plus customers at the end of the five-year phase-out period that equate to other British Columbia residential customers at that time. BC Hydro is directed to waive the requirement of having an alternative heating system in working order and to eliminate the possibility of service being interrupted over the five-year transition period;

- C. By letter dated February 24, 2017, the Commission established phase one of the reconsideration process for EPHG's Reconsideration Application and invited submissions from BC Hydro and all registered interveners in the BC Hydro 2015 Rate Design Application proceeding that address specific questions on whether the threshold for reconsideration has been met;

- D. Following the receipt of phase one submissions, the Commission established phase two of the reconsideration process by Order G-55-17 dated April 13, 2017, with the scope limited to the duration and shape of the phase-out of the residential E-Plus rate. The Commission also suspended the requirement for BC Hydro to submit a compliance filing regarding the residential E-Plus rate, as required by Directive 2 of Order G-5-17, pending the outcome of the phase two reconsideration process;
- E. Established by Orders G-55-17 and G-69-17, the regulatory process for phase two of the reconsideration included intervener registration, EPHG evidence, BC Hydro evidence, information requests and responses from both EPHG and BC Hydro and written arguments;
- F. BC Hydro and BC Sustainable Energy Association and Sierra Club BC (BCSEA) registered as interveners in phase two of the reconsideration process;
- G. The Commission has reviewed EPHG's Reconsideration Application and the evidentiary record and considers that a variance to parts of Directive 2 of Order G-5-17 dealing with the residential E-Plus rate is warranted.

NOW THEREFORE pursuant to section 99 of the *Utilities Commission Act*, and for the reasons attached as Appendix A to this order, the Commission orders as follows:

1. Directive 2 of Order G-5-17 is varied to read as follows:

BC Hydro is directed to phase out the Residential E-Plus rate program over ten years, commencing April 1, 2018, in accordance with Design B as outlined in Exhibit A-3. BC Hydro is directed to waive the requirement of having an alternative heating system in working order and to eliminate the possibility of service being interrupted over the ten-year transition period.

DATED at the City of Vancouver, in the Province of British Columbia, this 19th day of December 2017.

BY ORDER

Original Signed By:

D. M. Morton
Commissioner

Attachment

E-Plus Homeowners Group

Application for Reconsideration and Variance of Order G-5-17 in the matter of the British Columbia Hydro and Power Authority 2015 Rate Design Application

Reasons for Decision

December 19, 2017

Before:

D. M. Morton, Panel Chair

D. A. Cote, Commissioner

K. A. Keilty, Commissioner

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1.0 Introduction

1.1 E-Plus Homeowners Group application and approvals sought

On February 19, 2017, the E-Plus Homeowners Group (EPHG) filed an application for reconsideration and variance of parts of Directive 2 of Order G-5-17 dealing with the residential E-Plus rate, pursuant to section 99 of the *Utilities Commission Act* (UCA) (Reconsideration Application). In its Reconsideration Application, EPHG seeks a variance to Directive 2 of Order G-5-17 to extend the duration of the phase-out for the residential E-Plus rate from five to ten years with the majority of the rate increase at the end of the phase-out period.¹ However, in its final argument, EPHG modifies this request and “asks the Commission Panel to consider simply setting a termination date of 10 years in the future, and maintaining the E-Plus rate until that time, subject only to general rate increases.”²

In its Reconsideration Application, EPHG submits that the Commission “made a significant error in relying to a large degree on financial considerations, specifically residential E-Plus customers costs vs. savings relating to the E-Plus rate, that were incorrect or incomplete.”³ EPHG highlights the following financial considerations it contends were either incorrect or incomplete:

1. Value of savings to E-Plus customers;
2. Cost of joining and remaining in the E-Plus program;
3. Cost of exiting the E-Plus program; and
4. Financial impact of loss of transferability.⁴

EPHG also submits that the Commission order directing BC Hydro and Power Authority (BC Hydro) to phase out the residential E-Plus rate was “unexpected, being inconsistent with proposals made by BC Hydro in the RDA to retain but modify the rate.”⁵

EPHG states that the following factors support a 10-year phase-out period:

1. A 10-year phase-out period was previously considered appropriate in the following instances:
 - i. BC Hydro proposed to phase out the E-Plus rate over 10 years in the 2007 BC Hydro Rate Design Application (RDA) proceeding;⁶
 - ii. One of the options presented by BC Hydro in the customer engagement process leading up to the 2015 RDA proceeding was a 10-year phase out of the residential E-Plus rate; and
 - iii. Of the three interveners that suggested a phase out of the residential E-Plus rate during the BC Hydro 2015 RDA proceeding, Commercial Energy Consumers Association of BC (CEC) suggested a

¹ Exhibit B-1, pp. 1–2.

² EPHG Final Argument, p. 8.

³ Exhibit B-1, p. 1.

⁴ Exhibit B-1, pp. 3–6.

⁵ Exhibit B-1, p. 2.

⁶ British Columbia Hydro and Power Authority (BC Hydro) 2007 Rate Design Application (RDA) Phase 1, Decision dated October 26, 2007, p. 118.

10-year period⁷ and BC Sustainable Energy Association and Sierra Club BC (BCSEA) suggested that “the Commission should set a generous termination date with consideration of bill impacts and the recoupment of alternative investments.”⁸

2. There is a need to mitigate rate shock for residential E-Plus customers;
3. A 10-year phase-out period will allow for natural attrition to occur; and
4. A 10-year phase-out period will allow additional time and opportunity for customers to implement changes to their homes or heating systems.⁹

1.2 History of the residential E-Plus rate

Rate Schedule (RS) 1105, also known as the residential E-Plus rate, is a non-firm discounted rate that is designed to market surplus energy that would have otherwise been spilled due to the lack of consistent access to the spot market at that time. In the current proceeding, BC Hydro estimates there are approximately 6,853 residential E-Plus accounts at the end of fiscal 2017, compared to 1,714,857 residential accounts.¹⁰

The rate was first offered to new customers in 1987 and subsequently closed to new customers in 1990. In its 2007 BC Hydro RDA Decision, the Commission put further restrictions on RS 1105 by amending the availability clause and making the E-Plus rate available “only in premises where there has been no change in customer since April 1, 2008.” This, in effect, restricted the ability to transfer the E-Plus rate along with the sale of a property to new owners and promoted attrition.¹¹

While E-Plus service is non-firm and interruptible, BC Hydro reported in the 2015 RDA proceeding that it has never interrupted E-Plus load. BC Hydro asserted that Special Condition 1 of RS 1105 restricts BC Hydro’s right to interrupt the supply of energy noting that there must be “surplus hydro energy” and “the service cannot be provided economically from other energy sources.” This differs greatly from more typical interruptible rate provisions where BC Hydro is only required to provide service when there is sufficient energy and capacity available.¹²

BC Hydro 2015 RDA proceeding

BC Hydro applied to modify RS 1105 in the BC Hydro 2015 RDA proceeding by amending Special Condition 1 of RS 1105 to provide a practical interruptible option. On January 20, 2017, the Commission issued Order G-5-17 and the accompanying decision in the matter of the BC Hydro 2015 RDA (2015 RDA Decision). Directive 2 of Order G-5-17 states:

BC Hydro is directed to phase out the Residential E-Plus rate program over five years, commencing April 1, 2017. BC Hydro is directed to submit a compliance filing within 30 days of the date of this decision which outlines a proposal for achieving the five-year phase-out period

⁷ BC Hydro 2015 RDA Proceeding, CEC Final Argument, p. 88.

⁸ BC Hydro 2015 RDA Proceeding, BCSEA Final Argument, p. 37.

⁹ Exhibit B-1, pp. 7–9.

¹⁰ Exhibit C2-4, BCUC IR 1.7.1.

¹¹ BC Hydro 2015 RDA Proceeding, Exhibit B-1, pp. 5-48–5-49; Commission Order G-130-07.

¹² BC Hydro 2015 RDA Proceeding, Exhibit B-1, pp. 5-48–5-50; BC Hydro 2015 RDA, Decision dated February 6, 2017, pp. 23–24.

of the E-Plus program and which results in rates being charged to E-Plus customers at the end of the five-year phase-out period that equate to other British Columbia residential customers at that time. BC Hydro is directed to waive the requirement of having an alternative heating system in working order and to eliminate the possibility of service being interrupted over the five-year transition period;

In its decision accompanying Order G-5-17, the Commission states that:

The issue for the Panel is whether there is justification to maintain a highly discounted rate to a small group of customers in either its current form or in a modified form as proposed by BC Hydro or whether it should be terminated and phased out as proposed by some of the participants. We have considered the evidence and the positions taken by the parties and are not persuaded the benefits justify the high level of subsidization provided by RS 1105 in either its present form or in BC Hydro's proposed modified form.

1.3 Applicable legislation and reconsideration criteria

Section 99 of the UCA states "The commission, on application or on its own motion, may reconsider a decision, an order, a rule or a regulation of the commission and may confirm, vary or rescind the decision, order, rule or regulation."

The Commission has published Reconsideration Criteria¹³ which outline the Commission's two phase process for addressing reconsideration applications. The Reconsideration Criteria notes "If the utility or an intervener believes the Commission made a significant error, they may raise the issue again for further scrutiny by way of a reconsideration or an appeal."

The first phase is an initial screening phase in which the applicant must establish a *prima facie* case sufficient to warrant full reconsideration by the Commission. After the first phase evidence has been received, the Commission generally applies the following criteria to determine whether or not a reasonable basis exists for reconsideration:

- the Commission has made an error in fact or law;
- there has been a fundamental change in circumstances or facts since the Decision;
- a basic principle had not been raised in the original proceedings; or
- a new principle has arisen as a result of the Decision.

In addition, the Commission will exercise its discretion to reconsider, in other situations, wherever it deems there to be just cause.

When there are alleged errors of law and fact with respect to the Commission's jurisdiction, the application must meet the following criteria:

- the claim of error is substantiated on a *prima facie* basis; and
- the error has material implications.

¹³ http://www.bcuc.com/Documents/Guidelines/2009/DOC_22551_Reconsideration-Criteria.pdf.

If necessary, the reconsideration proceeds to the second phase where the Commission hears full arguments on the merits of the application.

1.4 Regulatory process

By letter dated February 24, 2017, the Commission established phase one of the reconsideration process for the EPHG Reconsideration Application and invited submissions from BC Hydro and all registered interveners in the BC Hydro 2015 RDA proceeding. The Commission received submissions from BC Hydro and BCSEA with a reply argument from EPHG.

By Order G-55-17, the Commission established phase two of the reconsideration process for EPHG's Reconsideration Application. The Commission stated that it "is persuaded that the reconsideration should proceed to the second phase on the grounds that the time duration for an appropriate phasing out of the E-Plus residential rate was not adequately explored in the original proceeding." The Commission, while providing examples of where the potential for phasing out the rate was discussed, noted that it was not part of BC Hydro's proposal in its 2015 RDA and "there was limited evidence regarding an appropriate phase out period duration."¹⁴ The Commission determined that in the interest of procedural fairness, a reconsideration of parts of Directive 2 of Order G-5-17 related to the E-Plus residential rate is warranted. The Commission limited the scope of the reconsideration to the duration and shape of the phase-out for the residential E-Plus rate. BC Hydro and BCSEA registered as interveners.

By Orders G-55-17 and G-69-17, the Commission established regulatory timetables for the second phase of the reconsideration process, which included intervener registration, EPHG evidence, BC Hydro evidence, information requests and responses from both EPHG and BC Hydro and written arguments.

1.5 Approach to the review of the reconsideration

There are a number of issues to be considered in reaching a determination on this reconsideration:

1. Whether there is sufficient rationale to support varying parts of Directive 2 of Order G-5-17, and if so;
2. The appropriate duration for the phase-out period and whether the residential E-Plus rate should be structured as a two-tier or a flat rate during the phase-out period; and
3. The appropriate shape for the phase-out period.

In conducting our review of these issues, the Panel needs to consider and weigh the importance of the impact on residential E-Plus customer bills, as well as customer understanding and complexity of implementing the various alternatives.

Both EPHG and BC Hydro filed evidence. A brief summary of this evidence is presented prior to the Panel's review of the issues raised.

¹⁴ Exhibit A-3, Order G-55-17, Appendix A, pp. 3–4.

2.0 Evidence

2.1 EPHG evidence

EPHG filed evidence on May 1, 2017 in response to Directive 2 of Order G-55-17, which granted EPHG leave to file new evidence on the duration and shape of the phase-out of the E-Plus residential rate. The EPHG evidence includes statements from over 70 EPHG members regarding their experience with the residential E-Plus rate and the challenges they will face as the rate is phased out.

In its evidence, EPHG states that the financial impact of the phase-out “has been misunderstood and was grossly understated during some parts of the recent RDA process.” EPHG expands on this argument by specifically addressing the following factors:

1. Cost of qualifying and maintain qualification for RS 1105;
2. Loss of transferability;
3. Impact on those RS 1105 customers that joined the E-Plus program when they purchased their homes relatively recently, before transferability ended, and have only experienced a few years of savings under RS 1105;
4. Rate shock upon the phase-out of RS 1105;
5. Cost of moving to alternate heating systems;
6. Environmental concerns may impact homeowners’ options; and
7. Low cost energy conservation programs are not a solution.

EPHG states that extending the phase-out period to 10 years would provide substantial mitigation for residential E-Plus customers.

2.2 BC Hydro evidence and rate designs

BC Hydro filed evidence on June 6, 2017, in accordance with Directive 2 of Order G-69-17 which states:

BC Hydro is directed to file evidence on or before June 6, 2017 with an analysis of the phase out of the residential E-Plus rate by the end of each of five, seven and ten years from April 1, 2017. Each analysis must include the following scenarios:

- a. Scenario 1: Bill impact evenly distributed over the phase out period.
- b. Scenario 2: Bill impact weighted towards the end of the phase our period.

BC Hydro’s evidence includes five designs for the phase-out of the residential E-Plus rate and the corresponding bill impact for residential E-Plus customers during the phase-out period. The bill impact under each design is provided for each of a five, seven and ten-year phase-out period. The information provided in BC Hydro’s evidence in relation to each design is summarized in Table 1.

Table 1: Summary of Bill Impact, Customer Understanding and Complexity of Implementation Analysis by Design¹⁵

Commission Scenario	Design	Description	Median Bill Impact Rate During the Phase-Out Period (%) ¹⁶			Customer Understanding Rating ¹⁷	Complexity of Implementation and Resources Required ¹⁸
			5	7	10		
1 (Bill impact evenly distributed over the phase-out period)	A	Two-step RS 1105 rate is introduced in year 1 of the phase-out period. Rate increase is evenly distributed over the phase-out period. Bill impact is evenly distributed and is parallel to the RRA.	8-10	6-9	5-7	Difficult	High
	B	RS 1105 rate remains a flat rate during the phase-out period. Rate increase is evenly distributed over the phase-out period. Bill impact is evenly distributed and is parallel to the RRA for most years. There is a sharp incline in bill impact at the end of the phase-out period when merged with RS 1101 rate.	7-13	5-12	4-12	Easy	Low
2 (Bill impact weighted towards the end of the phase-out period)	C	Two-step RS 1105 rate is introduced near the middle of the phase-out period. Rate increase is weighted towards the end of the phase-out period. Bill impact is the same as the RRA until the two-step rate structure is introduced, at which point the bill impact substantially increases.	3-43	3-16	2-15	Difficult	Low for 5 Year High for 7, 10 Year

¹⁵ Exhibit C2-3, pp. 4–5.

¹⁶ Exhibit C2-3, p. 4; Appendix B.

¹⁷ Exhibit C2-3, p. 5.

¹⁸ Exhibit C2-3, p. 5.

	D	<p>RS 1105 rate remains a flat rate during the phase-out period.</p> <p>Rate increase is weighted towards the end of the phase-out period.</p> <p>Bill impact is the same as the RRA until the rate increase is introduced towards the end of the phase-out period, at which point the bill impact substantially increases.</p>	3-18	3-12	3-13	Easy	Low
	E	<p>Two-step RS 1105 rate is introduced towards the end of the phase-out period.</p> <p>Rate increase is moderately distributed until the introduction of the two-step RS 1105 rate.</p> <p>Bill impact is evenly distributed and is parallel to the RRA until the two-step RS 1105 rate is introduced towards the end of the phase-out period, at which point the bill impact substantially increases.</p>	5-15	4-14	4-9	Difficult	High

Table 1 provides a description of each of the designs, the range of bill impacts under each design and an assessment of how each design rates with respect to customer understanding and design complexity. Design A and B relate to Commission Scenario 1 where the bill impact is spread evenly over the phase-out period and Design C, D and E relate to Commission Scenario 2 where the bill impact is weighted toward the end of the phase-out period.

BC Hydro provided additional details on how the RS 1105 rate increases are determined for each of the designs included in its evidence. For example, in Design D, the RS 1105 rate is determined as follows:

The RS 1105 flat rate increases by general rate increases applied for in BC Hydro’s Fiscal 2017- Fiscal 2019 [RRA] until about the middle of the phase-out period, and then it is increased in fixed amounts to reach the equivalent RS 1151 flat Residential Exempt Service rate in the year prior to merging with the RS 1101 two-step rate.¹⁹

RS 1105 is a flat rate under BC Hydro’s Electric Tariff for exempt residential service.

BC Hydro describes bill impact as a “typical measure of rate design, calculated as the total change in the customer’s total bill (including, in this case, both the E-Plus and non-E-Plus components), year over year, if

¹⁹ Exhibit C2-4, BCUC IR 1.2.1.

consumption stays constant.” BC Hydro further states that the bill impact provided in its evidence is inclusive of RRA increases.²⁰ For modelling purposes, the following RRA assumptions are used in BC Hydro’s evidence:

- F2017-F2019 are at 4.0, 3.5, and 3.0 percent, as applied for in the Fiscal 2017-Fiscal 2019 RRA;
- F2020-F2024 are 2.6 percent per year, in line with the targets for the 10-year rates plan;
- F2025-F2028 are 2.0 percent per year, in line with projected inflation.²¹

3.0 Review of the Issues

3.1 Sufficient rationale to support varying Directive 2 of Order G-5-17

As noted, EPHG has filed evidence with examples from some of the residential E-Plus customers outlining costs of installing a backup heat source which exceed the BC Hydro estimated amount of \$1300 to \$2800.²² In addition, EPHG submits that once E-Plus is terminated the cost of staying on electric heat will increase substantially. Moreover, if these customers choose to move from electricity to an alternative heating system, there will be significant cost impacts.

BC Hydro, as directed by the Commission, has provided evidence that moving residential E-Plus customers from their existing RS 1105 rate will involve significant change and there are notable differences in the financial impacts depending upon the approach undertaken to bring about this change. None of this evidence was on the record or considered as part of the BC Hydro 2015 RDA Decision.

Commission determination

The Commission agrees that the lack of evidence on the record in the BC Hydro 2015 RDA proceeding supports the need to consider changes to the duration as well as examine the shape of the phase-out of the residential E-Plus program. **Accordingly, the Panel varies those parts of Directive 2 of Order G-5-17 related to the duration of the phase-out of the residential E-Plus rate program and directs BC Hydro to provide revisions to the E-Plus rate schedules in compliance with the determinations and directions within these reasons for decision.**

BC Hydro’s evidence demonstrates there is considerable variance among the three temporal alternatives of five, seven and ten-years and the financial impact on residential E-Plus ratepayers is more onerous in the five-year transition alternative as compared to the longer ten-year duration. This evidence was not on the record and was therefore not adequately explored as part of the BC Hydro 2015 RDA Decision. Given these facts and concerns raised by EPHG, the Panel is persuaded that varying parts of Directive 2 of Order G-5-17 is warranted. Therefore, evidence and argument as to the most appropriate duration for transition to RS 1101 is considered along with the shape and form the rate will take.

²⁰ Exhibit C2-3, p. 4.

²¹ Exhibit C2-3, p. 4.

²² Exhibit B-3, p. 4

3.2 What is the appropriate duration of the phase-out period and the most appropriate shape of the design?

BC Hydro has provided various design models addressing a five, seven and ten-year phase-out of the E-Plus program. Each of these differs in terms of reliance on a flat or two-tier rate during the phase-out and the shape of the rate increases over this period. The Panel first considers the issue of duration and whether a flat or two-tier rate is most appropriate before addressing the optimum approach to shaping the rate increases over the phase-out period.

Duration of the phase-out period and the most appropriate rate design

With reference to BC Hydro's models for phasing out the residential E-Plus rate, EPHG argues that none of them alter the fact that customers face what it describes as unprecedented "rate shock" when the E-Plus program is phased out. EPHG has taken the position that the duration of the phase-out of the E-Plus rate should be expanded to 10 years.

According to EPHG, most of the E-Plus customers' RS 1105 consumption will be billed at the tier 2 of the residential RS 1101 once the E-Plus residential rate is phased out as "they all live in single family detached homes and in many cases do not have natural gas (NG) appliances." Noting BC Hydro's response to EPHG IR 1.3.5, EPHG states that the total electrical bill will increase from the current \$1580 to \$2650 if a five-year phase-out is employed and \$3060 if a ten-year phase-out is employed.²³

EPHG argues that BC Hydro's evidence downplays the bill impact by showing it as the change in the customer's total bill rather than as a proportion of the electricity cost for heating only and states it has presented strong arguments in its responses to BCSEA IR 1.1 and BCUC IR 3.1 as to why the correct measure of rate shock is the impact on that part of the bill relating to home heating costs. In its view, BC Hydro has not provided sufficient justification for using the total bill impact approach.²⁴

To EPHG, natural attrition is an important issue "because allowing for attrition to take place for several more years" can mitigate the impact of a phase out of a significant portion of E-Plus customers. Its belief is because the program was offered for only a few years (before 1990), E-Plus customers represent a cohort with a relatively narrow age distribution and a high percentage will become elderly in the coming years. In EPHG's view, this will result in a considerable increase in the rate of attrition for E-Plus customers and it estimates that 60 percent of customers could leave the program over the next ten years or shortly thereafter. Therefore, the effect of allowing natural attrition to occur will be very substantial especially if phase-out is delayed for a full 10 years.²⁵

EPHG submits that residential E-Plus customers may "...begin to look at possible investments they can make to reduce their heating bills to more affordable levels. Unfortunately these 'exit strategies' are very expensive whether paid for by current owners or passed to new owners of E-Plus homes, who will be considering the costs when making their purchase offers." Further, EPHG argues that:

²³ EPHG Final Argument, pp. 1–2, 7.

²⁴ EPHG Final Argument, p. 2.

²⁵ EPHG Final Argument, pp. 3–4.

...deferring the phase out of the E-Plus rate for 10 years or more would increase customers' savings while on the rate, helping them to defray the costs of heating conversions or upgrades and/or home improvements to improve energy efficiency. Possibly, new programs of financial assistance for such expenditures will be offered during that time.²⁶

EPHG argues there is no urgency to phase out the E-Plus program noting there has been no arguments put forth that suggest "the 'returns' of a quick phase out of E-Plus (as opposed to an extended period of notice) are so high as to justify ignoring the impact on those customers affected." In support of this, EPHG points to BC Hydro's response to BCUC IR 1.5.3, where it stated that the additional revenue created by eliminating RS 1105 at a maximum will amount to only 0.03 percent of total revenue.²⁷

BC Hydro takes no firm position with respect to the duration of the phase-out period. However, BC Hydro does state that the phase-out alternatives it prefers are those that maintain a flat rate for E-Plus through the end of the phase-out period. This is because this approach reduces complexity with a corresponding reduction in billing and customer understanding issues.²⁸ The phase-out alternatives meeting this criterion are as follows:

- Five-year phase-out – Design B, C and D;
- Seven-year phase-out – Design B and D; and
- Ten-year phase-out – Design B and D.

For both Design B and D, a two-step rate structure is delayed until the end of the phase-out period.

BC Hydro has provided projected total bill impacts for a five, seven and ten-year phase-out of the E-Plus rate for each of the design alternatives with reference to the two Commission shaping scenarios as part of its evidence. For ease of reference, three tables are reproduced in Appendix B of these reasons for decision. Table 1 of Appendix B outlines the impact of a five-year phase-out; Table 2, a seven-year phase-out; and Table 3 shows the impacts of a ten-year phase-out.²⁹

These tables summarize the percentage bill impact on rates for each year of the five, seven and ten-year phase-out period options. As noted in Section 2.0, BC Hydro has incorporated the following revenue requirement (RRA) rate increase assumptions in the preparation of these models: F2017-F2019 at 4.0, 3.5 and 3.0 percent per year respectively; for F2020-2024 at 2.6 percent per year; and F2025-2028 at two percent per year. To understand the net annual impact to residential E-Plus ratepayers of terminating the program (after eliminating the effect of RRA increases) under each of the phase-out models, these amounts need to be deducted from the impact percentages.

BCSEA argues that the phase-out period should be increased to ten years as requested by EPHG for the following reasons:

- the phase-out of this program will impose substantial rate shock on residential E-Plus customers.

²⁶ EPHG Final Argument, p. 4.

²⁷ EPHG Final Argument, p. 6.

²⁸ BC Hydro Final Argument, pp. 1–2.

²⁹ Exhibit C2-3, Appendix B, Tables B-1, B-2, B-3.

- there is potential for E-Plus customers to incur capital costs related to changing their residential heating systems. This is a negative financial impact of terminating the rate for those who choose to make such changes.
- during the phase-out period, there will be substantial natural attrition in the number of E-Plus customers. This reduces the cost of extending the length of the phase-out period.

In addition, BCSEA notes that it considers simplicity an important factor in choosing the appropriate phase-out design. As such, it agrees with BC Hydro that designs with a two-step rates are complex and create customer confusion requiring more work with customer education and communication. Given these considerations, BCSEA has assumed in making its final arguments that the residential E-Plus rate will remain a flat rate during the phase-out period.³⁰

In reply, EPHG states the evidence it has presented supports its argument that a five-year phase-out of the E-Plus rate as outlined in Order G-5-17 would be harsh and inappropriate and result in the imposition of undue and unjust hardship on E-Plus customers. It further states that more consideration should be given to mitigating the impact on E-Plus customers, including allowing more time for “natural attrition” to occur.³¹

Shape of rate increases over the phase-out period

The issue for the Panel is whether it is most appropriate to apply the rate increases evenly over the phase-out period, weight them toward the end of this period, or apply some other shape to the phase-out of the residential E-Plus rate.

EPHG “asks the Commission Panel to consider simply setting a termination date 10 years in the future, and maintaining the E-Plus rate until that time, subject only to general rate increases.” EPHG explains this approach offers increased mitigation with little additional cost as compared to other approaches being considered, is easy to understand, simple to implement and would provide a more fair outcome than the current Order G-5-17.³²

However, EPHG also states that of the designs that BC Hydro has modelled, “Option ‘D’ for a 10 year phase out best meets the needs of E-Plus customers as well as being the Option favoured by BC Hydro.” It continues by stating that this design could be improved “by modifying the increments of increase so that RS 1101 Step 1 rates were not exceeded during the ramp up phase.”³³ In response to this point, BCSEA notes that it doesn’t:

... see this as something that should affect the Commission panel’s choice of a phase-out rate design, because (a) using a two-part rate design for E-Plus consumption during the phase-out period would be too complex, as discussed above, (b) E-Plus customers with very low E-Plus consumption who would be financially worse off toward the end of the phase-out period due to the E-Plus rate approaching and reaching RS 1151 could close their E-Plus account and have all their consumption billed on the RIB rate.

³⁰ BCSEA Final Argument, p. 2.

³¹ EPHG Reply Argument, p.2.

³² EPHG Final Argument, p. 8.

³³ EPHG Final Argument, pp. 7–8.

As outlined in Tables 1, 2 and 3 in Appendix B, Design D prescribes a flat rate with a 10-year phase-out and rate increases weighted toward the last four years.

BC Hydro notes that previously, in Exhibit C2-3 it has stated that “Design D for a ten-year phase-out period strikes a good balance with respect of being easy for customers to understand and relatively simple to implement, with bill impacts toward the end of the transition period.”³⁴

BC Hydro observes that EPHG in its final argument proposes that the Commission provide direction to have the E-Plus rate phased out on the basis of Commission Scenario 2, Design D, for a ten-year period.

BCSEA supports approval of Design D presented by BC Hydro over a 10-year phase-out period as it “achieves an appropriate balance of simplicity, mitigation of bill impacts, certainty and proper price signal.”³⁵

BCSEA also addresses EPHG’s proposal to have a 10-year phase-out period with no changes to the flat rate other than the RRA increases to all customers. In its view, the primary difference between this approach and one where increases in the flat rate occur during the phase-out period is that in the all at once approach there will be a single very large bill shock event whereas the other approach has successive annual bill impacts. BCSEA submits that despite its simplicity and medium-term advantages to E-Plus customers, it is not convinced this approach provides sufficient regulatory certainty.³⁶

EPHG takes issue with BC Hydro’s assertion that it has proposed that the Commission should provide direction to phase out the E-Plus rate over a 10-year period with a reliance on Design D. EPHG states that its preference for a 10-year notice approach to the phase-out model was clear. In its view, other than spreading the increase over time, which would be viewed as being more benign than a single large increase, Design D has no particular advantage over the proposed 10-year notice approach.

EPHG states that its preference continues to be what it refers to as a “10 year notice” approach rather than the various approaches submitted by BC Hydro in its evidence. It notes that while BC Hydro did not comment on the potential for a “10 year notice” period the approach is nonetheless consistent with BC Hydro’s expressed preference for maintaining a flat rate throughout the phase-out period and avoidance of complexities.

EPHG does not accept BCSEA’s concern that the “10 year notice” approach would not provide regulatory certainty as being valid. It believes that such a ruling would have no less certainty than the current ruling and would send “a clear and final notice of termination.”³⁷

³⁴ BC Hydro Final Argument, p. 1.

³⁵ BCSEA Final Argument, p. 5.

³⁶ BCSEA Final Argument, pp. 3–4.

³⁷ EPHG Reply Argument, pp. 4–5.

Commission determination

Duration of the phase-out period and rate design

The Panel notes EPHG's concerns with respect to BC Hydro's practice of calculating bill impacts as the change in a customer's total bill year over year. In the interests of simplicity and to avoid confusion, the Panel accepts BC Hydro's approach, as it is common practice to consider the total bill rather than individual parts when calculating rate impacts. In our view, the issue being considered is the cost of electrical energy to residential E-Plus customers and the amounts they will be required to pay in the future. Breaking down the BC Hydro bill into separate components is a circumstance unique to E-Plus customers and the way they have been billed. The Panel is not persuaded that dealing with each of the E-Plus and non-E-Plus components separately offers any value to the analysis and, as a result, favours the consideration of total bill impacts only.

Acknowledging that bill impacts to E-Plus customers will be significant regardless of the length of the phase-out period, the Panel finds a 10-year period is the most appropriate duration for the phase-out of the residential E-Plus rate. Increasing the duration of the phase-out period to 10 years serves to reduce bill impacts regardless of the rate design chosen. In addition, depending upon how it is applied, moving to 10 years has the potential to reduce or eliminate the potential for rate shock. This is well demonstrated in Tables 1, 2 and 3 (in Appendix B) which outline the annual bill impact of each of BC Hydro's alternative designs for each of the five, seven and ten-year options. Not surprisingly, the lowest annual impact is with a 10-year phase-out. By contrast, if a five-year phase-out were employed, the impact on rates would be more severe. The Panel agrees with all of the participants that the 10-year design options are the most appropriate approach to take with the phase-out of E-Plus rates as it allows for rate increases that, to a large degree, minimize the impact on rates in any given year. While not determinative, the Panel notes that increasing the duration to 10-years also has the advantage of providing E-Plus customers additional time to consider options to upgrade or make improvements to their heating systems.

The Panel also finds the most appropriate approach to setting the rate structure is to rely on a flat rate structure for the 10-year phase-out period. The Panel notes that a two-step rate structure is currently in place for E-Plus customers for residential non-heating use and therefore, these customers have some experience with it. However, in the interests of simplicity and to avoid unnecessary customer confusion related to the introduction of this complexity during the phase-out period, the Panel considers a flat rate, as proposed by BC Hydro and supported by BCSEA, to be the most appropriate approach in this instance.

Shape of rate increases

Having determined that a 10-year duration to the phase-out period best addresses concerns with the size of bill impacts and that a flat rate is less complex and easier to understand, the remaining issue is how best to shape the increases over the phase-out period. Put simply, this issue raises the question as to whether it is most appropriate to apply rate increases evenly over the phase-out period, weight them toward the end of this period or, as proposed by EPHG, maintain the current E-Plus rate for a 10-year notice period.

While EPHG has advocated phasing out the E-Plus program with a single increase at the end of a 10-year period, both BC Hydro and BCSEA are supportive of moving ahead with Design D that delays bill impacts until the last

four years of the phase-out. Implementation of Design D would result in rate increases (inclusive of RRA rate increases) estimated ranging between 2.6 and 3.5 percent for the period beginning in 2018 and ending in 2024. From 2025 through 2028, the median rate increase would be 11.1, 10.0, 9.1 and 12.7 percent, respectively. Over these same four years, the maximum increase is estimated at 28.4, 22.1, 18.1 and 25.1 percent. Therefore, while the initial six-year period would have minimal impact on E-Plus customer rates, the last four years fall into the rate shock category, especially when the maximum rate impacts are considered.

Design B has similarities to Design D in that it is easy to understand and has a low level of complexity, but in this option, the rate increase is evenly distributed over the phase-out period. This has the effect of eliminating almost all of the percentage rate increase peaks and allows for a more consistent level of percentage increases over the 10-year phase-out period. By contrast, the median rate increase over the 10-year period under Design B would range from 3.9 to 6.7 percent for all but the last year (2028), inclusive of RRA increases. The maximum rate increase (including estimated RRA increases) under this design would range from 5.9 percent to 12.8 percent for all but the last year. Thus, the severity of a rate increase in any given year would be far less severe under Design B than Design D.

The Panel finds that in this instance, the appropriate approach to shape residential E-Plus rate increases over the 10-year phase-out period is offered by Design B. This approach offers a number of advantages. Perhaps most importantly, it spreads the total rate increase over the entire 10-year period. As a result, most E-Plus ratepayers will not be subject to large rate increases in any given year. Instead, the transition to RS 1101 will be relatively smooth with increases in median rates ranging from roughly four to seven percent in all but the last year. A second advantage is that this approach avoids onerous increases in any given year, allowing E-Plus ratepayers to investigate energy alternatives, or plan for the future without the concern of large single increases creating rate shock. Moreover, while not determinative, the Panel notes that while this approach does not offer the level of savings to E-Plus customers as the EPHG's 10-year notice approach, it would still offer significant savings over the period to help defer costs of any upgrades or improvements being contemplated by E-Plus customers. Finally, Design B, in addition to being easy to implement, is simple to understand which should eliminate any surprises as rate increases are all within a relatively narrow band.

The Panel notes EPHG's concern that under Design D, the residential E-Plus rates exceed the RS 1101 step 1 rate for the latter years. This is also the case under BC Hydro's Design B. The Panel agrees with BCSEA's response to this argument. E-Plus customers with very low consumption who would be financially worse off toward the end of the phase-out period due to the E-Plus rate approaching and reaching RS 1151 would have the option of closing their E-Plus account and have all their consumption billed on RS 1101.

The Panel acknowledges that EPHG has proposed an approach whereby the 10-year phase-out would be a notice period with no changes to flat rate other than those driven by RRA decisions. The Panel disagrees with this approach. In our view, suspending the process of harmonization of rates between E-Plus and other BC Hydro customers will achieve little other than to put off the inevitable. While the Panel agrees the number of customers directly affected would be less due to attrition, if this approach were applied, a substantial number would remain (over 3,000 by BC Hydro's estimate) and all of these would be exposed to a massive increase and rate shock if the rate increase were implemented at one time. The Panel wishes to avoid this circumstance and

favours an approach where bill increases are more progressive and the size of the annual rate impacts can be minimized.

Given these determinations, the Panel directs BC Hydro to phase out the E-Plus rate over a 10-year period in accordance with the provisions outlined in Design B. The timing for commencing the phase-out are discussed further in Section 4.1 following.

4.0 Other Issues

4.1 Timeline for phase-out of residential E-Plus rate

By Order G-5-17, the Commission directed BC Hydro to phase out the residential E-Plus rate commencing April 1, 2017. BC Hydro commented on the practical considerations for implementing any RS 1105 rate change effective April 1, 2017, as follows “BC Hydro suggests it would be preferable to set the effective date for [an E-Plus] phase-out three months after the date of the order, but account for time between April 1, 2017 and the effective date of the phase-out order in setting the phase-out period.”³⁸

No other parties addressed this issue.

Commission determination

The Panel accepts that the reconsideration process has delayed the effective date for initiating the phase-out process. To allow BC Hydro adequate time to address administrative issues related to phasing out the residential E-Plus program, the Panel varies Order G-5-17 with respect to the date of April 1, 2017 for commencement of the phase-out of the E-Plus program. **The Panel directs BC Hydro to phase out the residential E-Plus program effective April 1, 2018 with the transition to RS 1101 to be complete by March 31, 2028.**

4.2 RS 1105 restrictions

In its final argument, BC Hydro states that:

BC Hydro is considering the removal of the Electric Tariff restriction on replacement of existing space and hot water heating equipment to allow for energy efficiency upgrades. This would enable E-Plus customers to apply for BC Hydro conservation program incentives. However, to avoid increases in E-Plus load, BC Hydro believes it is necessary to maintain the restriction on E-Plus use for space and water heating purposes, and BC Hydro seeks a Commission confirmation of this principle in any reasons accompanying the final order. BC Hydro anticipates that the requirements to maintain a back-up heating system, and possibility of service interruption, would not be reintroduced during the phase-out period.³⁹

Panel discussion

As the Panel understands it, BC Hydro is seeking confirmation that the following conditions will remain as part of the RS 1105 tariff;

³⁸ Exhibit C2-4, BCUC IR 1.2.2.

³⁹ BC Hydro Final Argument, p. 3.

- RS 1105 is only available for residential space heating and water heating; and
- No additional load is permitted under RS 1105 at any time.

The Panel confirms that these conditions are to remain as part of the RS 1105 tariff over the phase-out period.

BC Hydro is also seeking confirmation that the Commission's direction to BC Hydro to "waive the requirement of having an alternative heating system in working order and eliminate the possibility of service being interrupted," as outlined in the BC Hydro 2015 Rate Design Decision, still stands. The Panel confirms that BC Hydro is to continue to waive the alternative heating system requirement and the potential for service interruptions related to the E-Plus tariff over the phase-out period.

E-Plus Homeowners Group
Application for Reconsideration and Variance of Order G-5-17
in the matter of the British Columbia Hydro and Power Authority 2015 Rate Design Application

TABLES FROM BRITISH COLUMBIA HYDRO AND POWER AUTHORITY'S EVIDENCE (EXHIBIT C2-3)

Table 1: Five-Year Phase-Out Bill Impact

			F2018	F2019	F2020	F2021	F2022	F2023
RRA (%)			3.5	3.0	2.6	2.6	2.6	2.6
Commission Scenario	Design	Five-Year Bill Impact Distribution Tables						
			F2018	F2019	F2020	F2021	F2022	F2023
1	A		F2018	F2019	F2020	F2021	F2022	F2023
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6
		Med (%)	10.2	9.3	8.5	8.2	7.9	7.6
		Max (%)	22.4	18.9	16.3	14.7	13.4	12.4
		Avg (%)	10.3	9.3	8.4	8.0	7.7	7.4
	B		F2018	F2019	F2020	F2021	F2022	F2023
		Min (%)	3.5	3.0	2.6	2.6	2.6	-8.7
		Med (%)	9.5	8.4	7.6	7.1	6.6	12.6
		Max (%)	20.8	17.2	14.7	12.8	11.3	24.2
		Avg (%)	9.6	8.5	7.6	7.0	6.6	12.0
	C		F2018	F2019	F2020	F2021	F2022	F2023
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6
		Med (%)	3.5	3.0	2.6	2.6	2.6	42.7
Max (%)		3.5	3.0	2.6	2.6	2.6	114.7	
Avg (%)		3.5	3.0	2.6	2.6	2.6	43.1	
2	D		F2018	F2019	F2020	F2021	F2022	F2023
		Min (%)	3.5	3.0	2.6	2.6	2.6	-11.4
		Med (%)	3.5	3.0	2.6	18.0	15.3	10.3
		Max (%)	3.5	3.0	2.6	47.2	32.1	19.8
		Avg (%)	3.5	3.0	2.6	18.4	15.1	9.7
	E		F2018	F2019	F2020	F2021	F2022	F2023
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6
		Med (%)	6.7	6.0	5.5	5.2	15.3	13.3
		Max (%)	12.7	11.3	10.1	9.2	33.1	24.9
		Avg (%)	6.8	6.1	5.5	5.2	15.1	12.9

Table 2: Seven-Year Phase-Out Bill Impact

		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	
RRA (%)		3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	
Commission Scenario	Design	Seven-Year Bill Impact Distribution Tables								
1	A		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0
		Med (%)	8.6	7.8	7.2	7.0	6.8	6.6	6.5	5.7
		Max (%)	17.6	15.4	13.6	12.5	11.7	10.9	10.3	9.1
		Avg (%)	8.6	7.8	7.1	6.9	6.7	6.5	6.3	5.5
	B		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	-9.1
		Med (%)	7.9	7.1	6.4	6.1	5.8	5.5	5.3	12.0
		Max (%)	16.4	14.0	12.3	10.9	9.9	9.0	8.2	23.7
		Avg (%)	8.1	7.2	6.5	6.1	5.7	5.4	5.2	11.4
2	C		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0
		Med (%)	3.5	3.0	2.6	2.6	2.6	16.0	14.4	12.5
		Max (%)	3.5	3.0	2.6	2.6	2.6	40.0	30.0	23.5
		Avg (%)	3.5	3.0	2.6	2.6	2.6	16.1	14.2	12.1
	D		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	-9.6
		Med (%)	3.5	3.0	2.6	2.6	12.3	11.0	10.0	11.7
		Max (%)	3.5	3.0	2.6	2.6	30.7	23.5	19.0	23.0
		Avg (%)	3.5	3.0	2.6	2.6	12.6	11.0	9.8	11.0
	E		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0
		Med (%)	5.9	5.4	4.9	4.7	4.5	4.4	14.4	12.3
		Max (%)	10.6	9.5	8.7	8.0	7.4	6.9	30.4	23.3
		Avg (%)	6.0	5.4	4.9	4.7	4.5	4.4	14.1	11.8

Table 3: Ten-Year Phase-Out Bill Impact

		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028	
RRA (%)		3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.0	
Commission Scenario	Design	Ten-Year Bill Impact Distribution Tables											
			F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028
1	A	Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.0
		Med (%)	7.2	6.5	6.0	5.9	5.8	5.7	5.6	4.9	4.8	4.7	4.7
		Max (%)	13.8	12.3	11.1	10.5	9.9	9.4	9.0	8.0	7.6	7.4	7.1
		Avg (%)	7.2	6.5	6.0	5.8	5.7	5.6	5.5	4.8	4.7	4.6	4.5
			F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028
	B	Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	-9.1
		Med (%)	6.7	6.0	5.5	5.2	5.0	4.8	4.6	4.1	4.0	3.9	12.1
		Max (%)	12.8	11.3	10.1	9.2	8.4	7.8	7.2	6.7	6.3	5.9	23.8
		Avg (%)	6.8	6.1	5.5	5.2	5.0	4.8	4.6	4.1	3.9	3.8	11.5
			F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028
2	C		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.0
		Med (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	15.3	13.7	12.5
		Max (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	39.2	29.2	23.5
		Avg (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	15.4	13.5	12.1
	D		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	-8.4
		Med (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	11.1	10.0	9.1	12.7
		Max (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	28.4	22.1	18.1	25.1
		Avg (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	11.4	10.1	9.0	12.0
	E		F2018	F2019	F2020	F2021	F2022	F2023	F2024	F2025	F2026	F2027	F2028
		Min (%)	3.5	3.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.0
		Med (%)	5.3	4.8	4.4	4.2	4.1	4.0	3.9	8.7	8.1	7.5	7.0
		Max (%)	8.7	8.0	7.4	6.9	6.4	6.1	5.7	18.2	15.4	13.4	11.8
		Avg (%)	5.4	4.8	4.4	4.2	4.1	4.0	3.9	8.6	7.9	7.2	6.7