E-Plus Homeowners Group

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British Columbia Utilities Commission
6th Floor – 900 Howe Street
Vancouver, BC V6Z 2N3
Attention: Patrick Wruck, Commission Secretary
By email: commission.secretary@bcuc.com

Dear Mr. Wruck,

RE: E-Plus Homeowners Group Application for Reconsideration and Variance of Order G-5-17 ~ Phase 2

Please find attached the Final Argument of the E-Plus Homeowners Group relating to the subject Application.

Respectfully,

Gary McCaig – for E-Plus Homeowners Group

E-Plus Homeowners Group Application for Reconsideration and Variance of Order G-5-17 ~ Phase 2

E-Plus Homeowners Group - Final Argument

1.0 Introduction

On February 19, 2017, the E-Plus Homeowners Group (EPHG) made Application for Reconsideration and Variance (document B.1, the "EPHG Application") of that part of Order G-5-17 dealing with the Residential E-Plus rate which read:

> "The Panel has determined that it is appropriate to phase out the residential E-Plus rate program over five years"

EPHG submitted that the Order as written would impose "undue and unjust financial hardship" on E-Plus customers and that there was a need for "a variance to the order to mitigate its financial impact on those customers". The EPHG Application suggested that the "appropriate remedy is to extend the phase out period to 10 years with the majority of the rate cost increase deferred until the later years of the transition period".

In its Application, and its Submission of Evidence (document B.3, the "EPHG Evidence") EPHG presented the arguments to support its request for a variance. This document, our Final Argument, will review and supplement some key points of those previous arguments in the light of additional information provided by BC Hydro's submission of Evidence (document C2.3, the "BC Hydro Evidence") and Response to Information Requests from the BCUC, EPHG and the BC Sustainable Energy Association / Sierra Club (document C2-4, "BC Hydro Response").

2.0 Rate Shock

A great deal of effort has been expended by BC Hydro in presenting and examining the details of 15 separate models for phasing out E-Plus. None of these models can alter the essential fact: E-Plus customers face an unprecedented level of "rate shock" when E-Plus is phased out, and this comes on top of substantial general rate increases that have been applied and will continue to be applied in coming years.

EPHG has always maintained that for the majority of customers most of their current E-plus consumption will be billed at step 2 rates once E-Plus is phased out. This is a reflection of the fact that they all live in single family detached homes and in many cases do not have natural gas (NG) appliances. BC Hydro confirms this is the case in their response to EPHG IR # 1.3.4, which states "the percentage of E-Plus customers' E-Plus electrical use that would be billed at

Step 2 if E-Plus consumption were tiered --- ranges from 0 percent to 100 percent with the **median -- being 99 percent"**.

Therefore, from the tables provided in Appendix A of the BC Hydro Evidence, which combines increases due to phasing out E-Plus with general increases in order to show future rates, almost all of the heating electricity for the median E-Plus customer will rise from the current 5.43 cents/kWh to 9.79 cents/kWh after 5 years, 10.25 cents/kWh after 7 years and 16.31 cents/kWh at the end of 10 years. This represents a **rate increase** of 200 percent over 10 years, a tripling of the rate applied to most of the heating electricity used by that customer.

Another measure of rate shock is the **percentage impact** of coming increases in the bills of E-Plus customers. In their response to EPHG IR # 1.3.5, BC Hydro shows that the increase in the E-Plus component of the median customer's bill is 122% due to phase out of E-Plus (over 5, 7 or 10 years) which is in addition to the general rate increases (assumed yearly RRA increases, compounded) of 18.1% after 5 years, 23.6% after 7 years and 31.2 % after 10 years (from Appendix B of BC Hydro Evidence).

In terms of **dollar amounts**, from the BC Hydro response to EPHG IR # 1.3.5, the total electrical bill for the median E-Plus customer will rise from $1580/year***** in the base period to $2650 at the end of a 5 year phase out, to $2800 after a 7 year phase out and to $3060 after a 10 year phase out (amounts include rate rider). The E-Plus portion of the bill will rise from $471/year***** to $1235 after a 5 year phase out, $1306 after a 7 year phase out and $1427 after a 10 year phase out (amounts exclude rate rider). Increases of this magnitude will present a serious financial challenge for many customers. For comparison, according to the "Fortis Home Energy Calculator" accessed on the Fortis website the current annual energy cost to heat a well insulated 1800 ft2 home in Vancouver is $288/year.

> ** The bill amounts for the base year were provided by BC Hydro on July 14, 2017 (Exhibit B-7) in response to a supplemental question asked by EPHG. EPHG believe these figures are necessary in order to fully understand BC Hydro's response to EPHG IR # 1.3.5 and on that basis ask that the Commission Panel allow their use.*

BC Hydro's evidence downplays the impact of phasing out the E-Plus rate by showing the resulting increase as a percentage of total electrical bill rather than of heating electricity cost (Appendix B of BC Hydro Evidence). Even when expressed in these terms the median increase for E-Plus customers over the 10 years period will be over 82%. BC Hydro has not provided any explanation or justification for focusing on the impact on total bill other than stating that this is consistent with their earlier approach (response to EPHG IR # 1.3.2). On the other hand, EPHG has presented strong arguments (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, which is considerably higher in percentage terms. Briefly, the E-Plus rate and this Application are concerned only with the cost of electricity used for heating, and homeowners, including E-Plus homeowners consider heating bills separately from general electrical bills in terms of their budgeting and financial planning.

Regardless of how "rate shock" is calculated or expressed it is clear that the impact of the phase out of E-Plus will be very substantial and likely unprecedented for any group of customers. Those affected are a small group of about 7000 homeowners, the majority seniors and many on fixed/low incomes with limited ability to tolerate large increases in the cost of heating their

homes. Customers were attracted to the E-Plus program by BC Hydro's assurance of reduced heating electricity rates for as long as they owned their home, and many based their retirement financial planning on that assurance. For some, the large increases now projected will force them to leave their current homes earlier than they had planned. Mitigation of the impact of higher rates is clearly called for and cannot come merely from "tweaking" the way in which the rate increases are applied, for example by spreading them over a number of years. On the other hand, as explained in the following sections, a significant deferral of rate increases will achieve substantial mitigation.

3.0 Natural Attrition

Since transferability of the E-Plus rate was ended by order of the BCUC following the 2007 RDA, BC Hydro has reported a rapid decrease in the number of residential E-Plus customers. This "natural attrition", and the rate at which it is occurring, has been the focus of many of the arguments presented in the recent 2015 RDA and in the current Application. **It is an important issue both because it has a large effect on any "cost" to BC Hydro of maintaining the E-Plus program , and because allowing for attrition to take place for several more years can provide mitigation** of the impact of phase out on a large portion of the current E-Plus customer base.

At the beginning of the 2015 RDA process, BC Hydro's position was that the E-Plus rate should be left to end naturally by attrition. It later modified that position to one where the "rules" for interrupting heating electricity to E-Plus customers would be broadened to allow "easier" and more frequent interruptions. EPHG argued that deliberately setting out to impose interruptions, through rule changes, was unjust and that leaving the rate to end by attrition (the outcome of the 2007 RDA) was the fair and correct approach to the rate.

During the 2015 RDA hearings (including its response to BCUC IR # 2.148.4) BC Hydro provided information on rates of attrition of E-Plus customers from the time transferability was ended until the end of 2015. At that time and during the current Application it also provided demographic information on the ages of E-Plus customers. Considered together these two sources provide a guide to the expected attrition in the E-Plus customer base going forward.

In their IR # 1.1.1, EPHG asked BC Hydro for their estimate of the numbers of customers that would be left on the E-Plus rate after 5, 7 and 10 years. In IR #1.2.2 EPHG asked BC Hydro to estimate the reduction in the predicted "loss of revenue" attributable to the E-Plus rate if the expected natural attrition of the E-Plus customer base was taken into consideration. In answering these questions, as well as BCUC IR # 1.5.2, BC Hydro assumed an annual attrition rate of 5%, based on experience between 2010 and 2016. According to BC Hydro this rate of attrition would reduce the number of residential E-Plus accounts to only 3743 after 10 years (down from the 7292 customers used in the modelling presented in the BC Hydro Evidence).

EPHG believes that attrition will grow beyond the 5% level in future years. This belief stems from the demographic information provided by BC Hydro. In its response to BCUC IR # 1.5.2, BC Hydro states that the median age of E-Plus customers in 2016 was 65 years. Consistent with this, in its response to EPHG IR # 1.1.2, BC Hydro confirms that at the end of a 10 year phase out 58 percent of current E-Plus customers would be 75 years or older.

BC Hydro's data confirms EPHG's contention that because the program was offered only for a few years E-Plus customers are a cohort with a relatively narrow age distribution compared to the general population, and that in the coming years a high percentage will become elderly. Our question to BC Hydro focused on the age of 75 years as we believe that is a reasonable estimate of the average age at which homeowners would begin the process of downsizing or leaving their current homes **for age-related reasons.** We believe that the result of this aging, in combination with the many other reasons that people might change homes, will be a considerable increase in the rate of attrition of E-Plus customers, and that this will be particularly evident for several years around the 10 year mark from today.

BC Hydro takes the position that age is not a factor in determining when E-Plus customers leave the rate (response to BCUC IR # 1.5.2). It bases this on the fact that the median age of those leaving the rate in 2016 was 68 years, only three years older than the 65 years of those with open E-Plus accounts. EPHG do not accept that BC Hydro's conclusion follows naturally from that data. We are not claiming that there is a direct correlation between customers' ages and their likelihood of leaving, except in their most elder years. We do claim that when people become very elderly they are more apt to leave their homes. To deny this would be to deny the unalterable relationship between age, deterioration of health and death.

Based on these facts EPHG believes that the annual attrition rate of E-Plus customers will rise above 5%, perhaps to as high as 10% over the next 10 years (we note that attrition has already reached over 9% in one year, calendar year 2015). This could lead to 60% or more of current customers leaving the E-Plus rate program within that period, or shortly thereafter. This is considerably more than will be leaving within the coming 5 or 7 year periods. If this belief proves true, the opportunity to mitigate the impact of E-Plus phase out through allowing natural attrition to occur will be very substantial, especially if phase out is delayed for a full 10 years.

4.0 Capital Cost of "Exit Strategy"

E-Plus customers, faced with the kind of rate shock described above and considering that in the absence of E-Plus rates their current electrical heating systems will be more expensive to operate than other heating alternatives, will 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.

In their Evidence EPHG have suggested that the most likely investments would be conversion to natural gas heating or the addition of a heat pump to an electric forced air system, and that for those E-Plus customers whose location and home design made those alternatives practical, the cost would likely run to the $10,000 - $15,000 range. In its response to BCUC IRs # 2.1 and # 2.3, EPHG provided details of how those numbers were arrived at.

BC Hydro has also provided some information relating to costs. In its response to BCUC IR # 1.8.1 regarding the cost of conversion to natural gas space heating, BC Hydro quoted a Fortis estimate of $9000 based on a newly constructed home in the lower mainland. EPHG expect

costs to be lower for a new home, where gas service is installed and this type of heat is planned for and incorporated into the design and construction, than for conversion of an existing home, where structural changes may be required and gas hook-up costs for “latecomers” might be high. Therefore the Fortis number confirms EPHG estimates and may even suggest a higher cost for conversion.

In response to BCUC IR# 1.7.1 BC Hydro estimate that only 1243 of 6853 (18%) of Residential E-Plus accounts did not have access to natural gas. Based on its members’ experience as reported in Appendix ‘A’ of EPHG Evidence, EPHG believe the BC Hydro estimate overstates the availability of NG. The estimate was based on Fortis records showing communities serviced with NG. However as discussed in the EPHG response to BCUC IR # 2.1 the fact that NG is generally available in a community does not mean it is available on a particular section of a street, or to a particular lot, or can be brought to new customers without prohibitive costs. Also, there are several communities where NG is available to core areas but not to outlying areas. For these and other reasons a NG conversion is simply not an option for many E-Plus customers.

In a second response, to BCUC IR # 1.8.2, BC Hydro estimated that a central (full house) heat pump could be installed at an average price of $8155. This is somewhat less than estimates obtained by E-Plus homeowners who have looked at this alternative (as reported in Appendix ‘A’ of the EPHG Evidence). In fact none of the EPHG members reported costs as low as the BC Hydro estimate. EPHG expect that the difference might again relate to costs for a new home versus a conversion in an existing home, where installation and structural modifications would drive the final cost higher.

In response to information requests (BCUC IR # 2.1 to EPHG, BCUC IR # 1.8.2 to BC Hydro), EPHG estimated a typical payback for conversion from electric to gas heating as falling between 4.5 and 13 years, cautioning that this was strongly affected by home design and location factors and for many homes might be impractical. BC Hydro estimated the return on heat pump additions to be 14 to 15 years. Both estimates were based on electric rates that would be in effect if E-Plus were ended today.

Based on these examples, some E-Plus homeowners, faced with large increases in the costs of their electric heat, could realize a modest “return” if they were able to make significant capital investments in their heating systems in order to lower on-going costs. But the stated “returns” for these homeowners come only from avoiding some of the cost impact of E-Plus phase out, not from reducing their current heating costs. Unfortunately, for many customers making investments of this magnitude will be beyond their means, even if there were a long term financial advantage to their doing so. There are no existing programs that would defray more than a fraction of the costs of these expenses (BC Hydro response to BCUC IR # 1.8.3).

However, 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. It is also possible that NG service will be extended to additional communities. A number of EPHG members have expressed interest in emerging technologies such as solar energy, and are hopeful these might become more economical in the coming years.

5.0 Other issues

5.1 Complexity of Billings and Customer Communication

EPHG share BC Hydro's concerns regarding the potential issues stemming from phase out designs that are complex and may be difficult for customers to understand or for BC Hydro to implement. For example, in their responses to BCUC IR's # 1.3.4 and 1.4.1, BC Hydro discussed the inherent problem with complex "intertwining" of RS 1101 and 1105 as rates increase.

A second example of a complexity that would create concerns was discussed in the EPHG response to BCSEA IR # 1.3, regarding Design 'D' for a 10 year period. In that design, rates for E-Plus electricity are ramped up to an extent that they are higher than RS 1101 Step 1 rates during the final two years of ramp up. For a few customers this could lead to a situation where their bills during the ramp up were higher than they would be once the E-Plus rate was ended. Likely, similar issues will arise with other phase out designs.

Customer communication and understanding is not a minor issue. Over 6000 E-Plus customers, those who are not members of EPHG, are completely unaware of the coming phase out of E-Plus, having received no communication regarding the outcome of the 2015 RDA. Once they learn the rate is ending it is inevitable that many will be angry and confused and complaints will be directed at BC Hydro, BCUC, the Provincial Government and the media. A phase out design that involves a number of consecutive large annual increase will likely result in a renewed round of complaints and challenges every time an increase occurs.

All these concerns could best be dealt with or avoided by choosing the simplest possible approach to phase out. EPHG believe this to be a fixed termination date, after an extended notice period of 10 years, with the only rate change (other than RRA increases applied to all customers) occurring on that date.

5.2 No Urgency to Phase Out

No arguments have been put forth that would 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.

BC Hydro has made it clear in their reply to BCUC IR # 1.5.3 and on other occasions that the additional income resulting from the Phase out of E-Plus will not translate into a noticeable general reduction in rates. They point to maximum additional revenue of only 0.03 percent of total revenue. (Note: much of this revenue would have been realized in any case, due to natural attrition of the E-Plus customer base, as shown in BC Hydro's response to BCUC IR #1.5.2.1.)

BC Hydro must also recognize that annual increases in revenue will additionally be reduced, for example, by E-Plus customer's increased use of back-up heating systems, or by their conversion to other forms of primary heating as their rates rise. BC Hydro could not be expected to implement a general rate reduction based on hypothetical projections of increased revenue that they know will never be completely realized.

The only intervener, other than BC Hydro, who has participated actively in the subject Application is the BC Sustainable Energy Association / Sierra Club of BC (BCSEA).

Based on their submissions during the 2015 RDA, EPHG understand that a principal concern of of BCSEA is that rates reflect the Bonbright principles. More specifically, as related to the E-Plus program, BCSEA has expressed concerns that a “discounted” rate may send the wrong signals to customers regarding the need for conservation. EPHG believe that these concerns can be addressed by setting a firm date for the termination of the E-Plus program, even if that date is as much as 10 years in the future

5.3 Environmental Issues

If phase out (rate increases) occur before customers have had adequate time to plan, finance and implement their individual strategies for managing the coming changes, the certain response of many will be to run their back-up systems more often. In almost every case this involves the burning of wood or fossil fuels.

Wood emissions have become a recognized problem in many communities, being related to various health concerns. Fossil fuels are being discouraged because of their contribution to climate change.

Many E-Plus customers who could potentially convert to NG heating are loath to do so because of the environmental concerns relating to the burning of fossil fuels. They point to the irony, or even the hypocrisy of phasing out E-Plus, due to concerns the rate is subsidized, at the same time as the public is asked to support subsidies for electric vehicles and increases in the Carbon Tax.

In fact, from an environmental perspective the preferred outcome would be for E-Plus customers to retain electric heat, but to make that more affordable by finding ways to increase heating efficiency (e.g. through use of heat pumps) or to reduce heating demand (e.g. through home improvements). These require large capital investment and in the context of this Application can best be facilitated through an extended period of notice prior to termination of E-Plus.

6.0 Request for Mitigation

The Evidence provided by BC Hydro and its responses to Information Requests generally support EPHG’s contention that the impact of the phase out of E-Plus on those affected will be very serious and that mitigation is justified. They also support the contention that mitigation can best be achieved by deferring any rate increases as long as possible. This would allow considerable natural attrition, which would substantially reduce the number of customers directly affected. It would also provide additional savings to assist those staying in their homes with the capital investments needed to move to alternate heating systems such as NG or to more efficient electric heating systems such as heat pumps, as well as to optimize the energy efficiency of their homes.

EPHG has applied for the phase out period to be extended to 10 years. This would offer substantial mitigation while still providing a definitive end point for the E-Plus rate. EPHG has also requested that rate increases be deferred until near the end of the phase out period.

Of the “designs” modelled by BC Hydro, 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 could be

improved by modifying the increments of increase so that RS 1101 Step 1 rates were not exceeded during the ramp up phase.

However E-Plus Homeowners Group 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. This simple deferral would offer increased mitigation at little additional “cost” compared to other 10 year designs, would be easy for customers and all other parties to understand, and simple to implement, and would be seen by customers as providing a more fair outcome than that provided by the current order.

While this approach would result in a single very substantial rate increase upon the termination of E-Plus, customers would have had an extended time to prepare, and would know exactly what to expect. We believe the vast majority would prefer this approach to several years of still very large increases leading up to final termination.

END