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June 20, 2017

E-PLUS HOMEOWNERS GROUP RECONSIDERATION & VARIANCE G-5-17 PHASE 2 EXHIBIT A-6

Sent via eFile

Mr. Fred James
Chief Regulatory Officer
Regulatory & Rates Group
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Re: E-Plus Homeowners Group – Application for Reconsideration and Variance of Order G-5-17 ~ Phase 2. – Commission Information Request No. 1

Dear Mr. James:

Further to your March 16, 2017 filing with respect to the above noted application, enclosed please find British Columbia Utilities Commission Information Request No 1. In accordance with the regulatory timetable set out in Order G-69-17, please file your responses with the Commission on or before Wednesday, July 5, 2017.

Sincerely,

Original signed by:

Patrick Wruck
Commission Secretary

/kn
Enclosure

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

INFORMATION REQUEST NO. 1 TO BC HYDRO

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A. BC HYDRO EVIDENCE

1.0 **Reference: BC HYDRO EVIDENCE**
Exhibit C2-3, pp. 1-3; Appendix A
RS 1105 Rate Design Options with Two Step Rate Structures

The BC Hydro evidence includes five phase out designs (Design A, B, C, D, E) and Appendix A contains detailed rate design illustrations and rate tables. Page 1 describes each of the designs as follows:

Commission Scenario 1: Bill impact evenly distributed over the phase-out period.

- Design A: immediate transition to two step rate structure; and
- Design B: two-step rate structure delayed until end of phase-out year(s).

Commission Scenario 2: Bill impact weighted towards the end of the phase-out period.

- Design C: two-step rate structure delayed until near the middle of phase-out years;
- Design D: two-step rate structure delayed until end of phase-out year(s); and
- Design E: moderate increases combined with delayed two-step rate structure.

1.1 Please elaborate on the details of the two-step rate structure for Design A, C and E for each of five, seven and ten year phase out periods, including the threshold between step 1 and step 2.

1.1.1 Please summarize the qualitative and quantitative pros and cons for the customer and BC Hydro of implementing a two-step rate structure for RS 1105 during the phase out period versus maintaining RS 1105 on a flat rate until the end of the phase out period.

1.2 As noted in the preamble to this information request, Design C is described as "two step rate structure delayed until near the **middle of the phase-out years**." [emphasis added] Appendix A illustrates that the two step rate structure will be introduced as follows:

Phase out duration	Year that two step rate structure is introduced
5 years	Year 6 (2023)

7 years	Year 6 (2023)
10 years	Year 9 (2026)

For Design C, please elaborate on the rationale for introducing the two step rate structure in 2023, 2023 and 2026 for the 5, 7 and 10 year phase out durations, respectively.

1.3 Design E is described on page 1 as "moderate increases combined with delayed two-step rate structure." Appendix A illustrates that the two step rate structure will be introduced as follows:

Phase out duration	Year that two step rate structure is introduced
5 years	Year 5 (2022)
7 years	Year 7 (2024)
10 years	Year 8 (2025)

For Design E, please elaborate on the rationale for introducing the two step rate structure in 2022, 2024 and 2025 for the 5, 7 and 10 year phase out durations, respectively.

1.3.1 Please discuss what does BC Hydro considers to be a "moderate" rate increase.

2.0 **Reference: BC HYDRO EVIDENCE**
Exhibit C2-3, Appendix A
Detailed Rate Design Descriptions and Rate Tables

2.1 For each of Design A, B, C, D and E, please describe how the annual RS 1105 rate increases included in the analyses in Appendix A have been determined.

2.1.1 Please elaborate on the relationship between the annual RS 1105 rate increases included in the analyses in Appendix A and the projected annual RRA rate increases. Specifically, please discuss how differences between the projected and actual RRA rate increases will impact the analyses.

2.2 Order G-5-17 directed BC Hydro to phase out the residential E-plus rate over five years, commencing April 1, 2017. Please comment on any practical considerations for implementing any RS 1105 rate changes effective April 1, 2017.

3.0 **Reference: BC HYDRO EVIDENCE**
Exhibit C2-3, p. 4; Appendix B
Bill Impact Analysis

Page 4 of the BC Hydro evidence includes a Bill Impact Analysis, which illustrates the median bill impact range during the phase out for the five designs (Design A, B, C, D, E).

BC Hydro states that "[f]or modelling purposes, the following rate increase (RRA) assumptions are used. F2017 - F2019 are at 4.0, 3.5, and 3.0 per cent, as applied for in the Fiscal 2017 - Fiscal 2019 Revenue Requirements Application (RRA); F2020 – F2024 are 2.6 per cent per year, in line with the targets for the 10-year rates plan; F2025 - F2028 are 2.0 per cent per year, in line with projected inflation."

Appendix B contains tables that illustrate a range of bill impact distribution that is inclusive of RRA.

3.1 Does BC Hydro consider it feasible to create a phase out design for RS 1105 that maintains a flat rate for RS 1105 until the end of the phase out period and achieves a bill impact outcome that is evenly distributed over the phase out period but does not include a sharp incline at the end of the phase out period when merged with the inclining block rate? Please discuss why or why not.

3.2 Please update Table B-1, B-2 and B-3 to include the median increase in the annual energy charge for each year during the phase out for designs A, B, C, D and E.

3.3 Please explain why the median was chosen as the illustrative measure for the bill impact analysis on page 4.

3.4 Please confirm when the BC Hydro 10-year rates plan was introduced and explain if the targets included in the plan reflect the best estimate of rate increases for F2020-F2024 to be used for illustrative purposes in Exhibit C2-3.

3.5 Please provide the source for the projected inflation and explain if inflation reflects the best estimate of rate increases for F2020-F2024 to be used for illustrative purposes in Exhibit C2-3.

3.5.1 In order to demonstrate the sensitivity of the bill impact analyses to fluctuations in the projected RRA rate increases, please recreate Table B-2 and Table B-3 assuming RRA rate increases of 3 percent, rather than 2 percent for F2025-F2028.

4.0 **Reference: BC HYDRO EVIDENCE**
Exhibit C2-3, p. 5
Customer Understanding and Implementation Resources

Page 5 of the BC Hydro evidence includes a summary of Customer Understanding and Implementation and Resources Requirement for each design.

4.1 Based on the table provided on page 5 of the BC Hydro evidence, the following characteristics contribute to a high degree of complexity for Implementation and Resources Required:

1. Combining and intertwining RS 1101 and RS 1105 consumption;
2. Immediate and mandatory conversion of all E-plus customers to have one account with both E-Plus and non E-Plus meters;
3. Immediate requirement to align customer billing preferences, such as Equal Payment Plan (EPP) and Preauthorized Payment Plan (PPP).

Please clarify if Design C (for 7 and 10 year phase out periods) and E contain all three characteristics listed above, or only characteristic 1.

4.1.1 For each of the characteristics listed above, please elaborate on why these characteristics are required under Design A, Design C (for 7 and 10 year phase out periods) and E.

4.1.2 Please provide an estimate of the incremental costs associated with a High Degree of complexity for implementation and resources required.

4.2 For those designs that have a “Difficult” rating for Customer Understanding, how would BC Hydro propose to communicate with customers regarding the phase out rate design?

4.3 Please explain what is meant by the statement “two sets of inclining block rates that share the same threshold”, found on page 5, Design A, Customer Understanding.

5.0 **Reference:** **BC HYDRO EVIDENCE**
Exhibit C2-3, p. 6; Appendix C
Change in Revenue Collection

The table on page 6 of the BC Hydro evidence illustrates the estimated revenue collected from the phase out compared to the status quo.

Appendix C includes a detailed revenue collection analysis with table that illustrate the "estimated change in revenue collected from the phase-out compared to the status quo (i.e. continuation of the E-plus rate), assuming that there is no inflation, no discounts and that the number of E-Plus accounts and their consumption patterns stay constant throughout the phase-out period."

Appendix C-3B of BC Hydro's 2015 Rate Design Application (Exhibit B-1)[1] includes the following estimates:

- Average annual attrition: 513 residential customers
- Natural termination of E-plus: about 20-25 years

5.1 Please explain why inflation is not factored into the revenue collection analysis in Appendix C.

5.2 Does BC Hydro still consider 513 customers to be a reasonable estimate of average annual attrition for RS 1105? If not, please provide the most up to date estimate.

5.2.1 Please recreate Tables C-1, C-2 and C-3 factoring in average annual attrition for RS 1105.

5.3 Please discuss if the change in revenue associated with the phase out of RS 1105 is expected to have an impact on residential rates.

6.0 **Reference:** **BC HYDRO EVIDENCE**
Exhibit C2-3, p. 1 and Appendix B
Residential E-Plus Customer Consumption Data

The BC Hydro evidence includes five phase out designs (Design A, B, C, D, E) for "for the durations of five, seven and ten years under each of the two scenarios as directed by the Commission."

Appendix B contains detailed bill impact analyses which illustrate a range (Minimum, Median, Maximum and Average) of annual bill impact distributions, inclusive of RRA rate increases.

In response to BCUC IR 2.146.3 in the 2015 BC Hydro RDA proceeding (Exhibit B-23)[2], BC Hydro submitted that "E-plus customers with similar amounts of total household consumption can have very different bills. This is due to the dual meter feature of the E-plus rate, which causes the energy portion of the bill to be dependent on both the E-plus consumption as well as non E-Plus household consumption. BC Hydro's billing data shows that the E-Plus consumption as a proportion of total household consumption ranges from 35 per cent to 63 per cent for the 25th and 75th percentile of E-Plus customers (by annual kWh)."

6.1 For each of the Minimum, Median, Maximum and Average, please provide the following:

- Total annual consumption (kWh) and a breakdown of annual consumption on both E-plus (RS 1105) and non E-Plus meter used in the analyses.
- An explanation of how BC Hydro arrived at the consumption data used in the bill impact

[1] http://www.bcuc.com/Documents/Proceedings/2015/DOC_44664_B-1-BCH-2015-Rate-Design-Appl.pdf
[2] http://www.bcuc.com/Documents/Proceedings/2016/DOC_46092_B-23_BCH-Response-IR-2.pdf

analyses, specifically:

- The split between the E-plus and non E-plus consumption;
- For non E-plus consumption, the split between annual Step 1 and Step 2 charges.

B. EPHG APPLICATION FOR RECONSIDERATION

7.0 **Reference: EPHG Application for Reconsideration**
Exhibit B-1, p. 7; BC Hydro Electric Tariff, Rate Schedule 1105; Commission Order G-21-92
BC Hydro Customer Data

Page 7 of the EPHG Application for Reconsideration states that: "E-Plus homeowners live in single family homes and in many cases still do not have access to NG [Natural Gas] for home appliances (E-Plus was only offered in areas not served with NG in 1987) so it is generally true that their non-heating power use is significant, and once E-Plus is phased out their entire heating electricity use will be billed at Step 2 rates."

Rate Schedule 1105 of BC Hydro's Electric Tariff states:

> This Rate Schedule is available only for Premises served under this Rate Schedule on January 15, 1990 and continuously thereafter, only with respect to equipment served under this Rate Schedule on January 15, 1990 and continuously thereafter, and only in Premises where there has been no change in Customer since April 1, 2008.[3]

Commission Order G-21-92 dated February 13, 1992 approved BC Hydro's December 18, 1991 Application to amend the Availability and Special Conditions clauses of Electric Plus rate schedules, effective February 13, 1992. This included the removal of the requirement that the availability of service be contingent upon there being no natural gas service to a customer's premises.[4]

7.1 Please provide the current number of:

- Residential E-plus customers;
- Total residential customers;
- Residential E-plus customers without access to natural gas;
- Total residential customers without access to natural gas;
- Total residential customers that use BC Hydro electricity for space and hot water heating.

7.2 Please provide the total number of residential E-plus customers when Rate Schedule 1105 was closed to new premises and equipment on January 15, 1990.

7.3 Please confirm, or explain otherwise, that no residential E-Plus customers had access to natural gas before February 13, 1992.

8.0 **Reference: EPHG Application for Reconsideration**

[3] https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/tariff-filings/electric-tariff/bchydro-electric-tariff.pdf

[4] http://www.ordersdecisions.bcuc.com/bcuc/orders/en/item/112982/index.do?r=AAAAAQAHRy0yMS05MgE

Exhibit B-1, p. 5
Cost of exiting the residential E-Plus program

In its Application, EPHG submits that "[m]any, particularly those where [natural gas] has now become available, will consider the substantial Capital investment required to convert to another form of heat. Others will consider installing heat pumps or emerging technology such as solar panels to help lower costs. All of these options are expensive. Costs will vary with home design factors such as available space, existence of heating vents and chimneys etc., but could easily run to the $10,000 - $15,000 range."

8.1 Please provide an estimate of the total average cost to convert a single family dwelling from electric space and water heating to natural gas.

8.2 Please provide an estimate of the total average cost to install a heat pump, the estimated annual energy savings resulting from this technology and the payback period.

8.2.1 Please provide any available information on the number of residential E-plus customers that have heat pumps installed.

8.3 Please provide details on any rebates that are currently available to residential E-plus customers for installing energy efficient products in their homes, such as heat pumps.

8.4 Please provide any available information on the back-up heat source (e.g. wood, oil, propane) used by residential E-plus customers.