

REQUESTOR NAME: **BC Sustainable Energy Association and Sierra Club BC**
INFORMATION REQUEST ROUND NO: 1
TO: **BC Hydro**
DATE: **March 8, 2016**
PROJECT NO: **3698781**
APPLICATION NAME: **BC Hydro 2015 Rate Design Application**

21.0 Topic: Residential Rate Design

Reference: Exhibit B-1, Chapter 5 – Residential Rate Design, p. 5-33 to p.5-35 RIB pricing principles; Exhibit B-5, BCUC 1.41.2; Exhibit B-17, p.1

“...Table 2-7 of Exhibit B-1 describes the Bonbright economic efficiency as criteria: “Price signals that encourage efficient use and discourage inefficient use.” BC Hydro believes that efficient usage for its Residential customers is best encouraged by Step 2 prices that reflect LRMC. This does not require that prices be exactly equal to LRMC. While the 11.95 cent/kWh RIB rate step 2 price (F2016) is somewhat above the energy LRMC range, BC Hydro believes that it is reasonably close enough to LRMC to continue to encourage efficient use. Similarly, BC Hydro believes that the rates under RIB rate F2017 to F2019 pricing principle Option 1 would also continue to encourage efficient use, though to a lesser extent than F2017 to F2019 pricing principle Option 2.” Exhibit B-5, BCUC 1.41.2

“Given the updated Load Resource Balance and cost of supply outlook, BC Hydro’s current view on the energy Long-Run Marginal Cost has shifted towards \$85/MWh from \$85 to \$100/MWh. The potential further changes to the Load Resource Balance noted below are not expected to impact the Long-Run Marginal Cost any further because those changes are unlikely to result in a change to the marginal resources over the planning horizon.” Exhibit B-17, p.1

21.1 Given the revised energy LRMC figure given in Exhibit B-17, does BC Hydro continue to believe that using pricing principle Option 1 (RRA applied equally to all three rate elements) for the default residential rate (RIB rate) will yield a step 2 price for the F2017 to F2019 period that is reasonably close enough to LRMC to continue to encourage efficient use. If so, why? If not, why not?

22.0 E-Plus Rate, pp. 5-54 to 5-56, E-Plus customers interruption notice; Exhibit B-14, BCUC 1.43.1 with attachments; Exhibit B-1-1, Appendix G1C, Rate Schedule 1205, 1206, 1207

“As identified in section 1.5.2 of the Application, RDA Module 2 will address:... Commercial E-Plus rates (RS 1205/1206/1207).” [pages 6-2 to 6-3]

22.1 For context regarding the Residential E-Plus Rate, please provide an update on BC Hydro’s actions and intentions regarding the Commercial E-Plus rate and consultations (if any) with Commercial E-Plus customers.

22.2 Are the proposed changes to the wording of Commercial E-Plus Rate Schedule 1205, 1206, 1207 purely to modernize the language?

23.0 Commercial Rate Design
Reference: Exhibit B-5, BCUC 1.4.1

“...BC Hydro is evaluating a Customer Billing Project, which aims to redesign BC Hydro’s bills to increase customers’ understanding of their bills and rates, deliver clearer account related information and promote conservation messages. If approved, this project would potentially be in place in 2017. Please also refer to BC Hydro’s response to COPE IR 1.20.1.”

23.1 Does the Customer Billing Project also address invoices for commercial customers?

23.2 More generally, what plans does BC Hydro have for communicating to commercial customers about the changes to the LGS and MGS rate structure if they are approved?

24.0 Topic: Residential Rate Design
Reference: Exhibit B-1, Chapter 5 – Residential Rate Design; Appendix C-3B, Evaluation of the Residential Inclining Block Rate F2009-F2012 Revision 2, Figure 3 (p. 1921 of 4902), Figure 5 (p. 1922 of 4902), Table 3.9. Step 2 Price Elasticity by Consumption Level (p. 1927 of 4902), and Table 3.17 ANOVA Tests: Mean Electricity Consumption in F2012 by RIB Rate Awareness, (p. 1935 of 4902)

24.1 Is BC Hydro able to estimate the breakdown of RIB-induced DSM savings for residential customers according to their tranche of electricity consumption? If so, please provide the results.

24.2 Can BC Hydro confirm that all tranches of residential customers by consumption are contributing at least some energy savings due to the RIB rate?

25.0 Topic: Residential Rate Design
Reference: Exhibit B-1, CHAPTER 6 – GENERAL SERVICE RATE DESIGN, RS 1278, p.6-3; Exhibit B-5, BCUC 1.52.1; 1.52.2

“RS 1278 (Power Service – (Closed)). RS 1278 originated with one of BC Hydro's predecessor companies, BC Electric, in the 1920s. RS 1278 is designed to encourage industrial developments, specifically electric arc furnaces. RS 1278 was closed in the 1970s and was reviewed by the Commission in the 1991 RDA. The 1991 RDA Decision determined that BC Hydro may terminate rate availability when there is a change in ownership or use. There is currently one customer receiving service under RS 1278. This rate was not reviewed in the 2015 RDA stakeholder engagement process and therefore specific engagement with the customer did not occur. Accordingly, BC Hydro believes it would be inappropriate to eliminate RS 1278 at this time.” [p.6-3, underline added]

In BCUC IR 1.52.1, BC Hydro was asked whether it would discuss elimination of RS 1278 in module 2. BC Hydro responded: “BC Hydro would need to assess the

customer's current situation and potential rate options before making this decision."

- 25.1 Does BC Hydro intend to assess the RS 1278 customer's current situation and potential rate options, with a view to making a decision regarding whether to propose elimination of RS 1278 in module 2? If not, why not?

26.0 Topic: RIB Rate Report
Reference: Exhibit B-5, BCUC 1.47.1.1

"It is feasible for BC Hydro to report on high electricity use for Residential customers without natural gas using BC Hydro's proposed definition of "access to natural gas" as described in section 5.5.3 of Exhibit B-1. BC Hydro does not believe it is feasible to report on combined electric and natural gas usage as BC Hydro does not have access to the natural gas usage by its customers nor does FortisBC have access to BC Hydro's customers' electricity consumption. There would be confidentiality issues with sharing the information amongst the utilities."

- 26.1 How does the joint utility Conservation Potential Review deal with the challenge of obtaining both natural gas and electricity data while respecting confidentiality requirements?
- 26.2 Could this approach be used to obtain total household gas and electricity usage data for the RIB report?

27.0 Topic: RIB Rate Report
Reference: Exhibit B-5, BCSEA 1.13.1

"BC Hydro's statement that it considered but rejected number of occupants as a factor should be interpreted to mean that the number of occupants is confounding with the size of the home; using both parameters concurrently as explanatory variables in determining consumption could be problematic. From a statistics and modelling perspective, since the two parameters are correlated, there will be at least some multi-collinearity in a regression model."

- 27.1 Does this response mean that the correlation of size of home with electricity consumption is higher than the correlation of number of occupants with electricity consumption? Why did BC Hydro choose to use size of home rather than number of occupants, if only one parameter can be used?
- 27.2 Is omitting one of the variables the best way to deal with the multi-collinearity in this situation? Would using more data help? Is it possible to obtain more data?