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October 17, 2015

British Columbia Hydro and Power Authority
333 Dunsmuir Street
Vancouver BC
V6B 5R3
Attn: Tom A. Loski, Chief Regulatory Officer
By email: bhydroregulatorygroup@bchydro.com

Dear Madam:

Re: British Columbia Hydro and Power Authority 2015 Rate Design Application (RDA);
BC Utilities Commission Order G-156-15;
BC Sustainable Energy Association and Sierra Club BC, Information Request No. 1

Attached please find a copy of BCSEA-SCBC's Information Request No. 1 to BC Hydro in this proceeding, filed on the Commission's website today.

BCSEA-SCBC have relatively few information requests at this time. As you know, BCSEA-SCBC participated fully in BC Hydro's 2015 RDA stakeholder engagement process, which is described in the Application. During the engagement process, BCSEA-SCBC obtained considerable information and explanation about the options that were evaluated and BC Hydro's reasons for its preferences as now reflected in the Application. In addition, BCSEA-SCBC have carefully reviewed the Commission's Information Request No. 1 (Exhibit A-5) and won't duplicate the Commission's questions.

BCSEA-SCBC look forward to BC Hydro's responses to the Commission's and interveners' information requests in accordance with the regulatory timetable.

Yours truly,

William J. Andrews



Barrister & Solicitor

Encl.

cc. Distribution List by email

REQUESTOR NAME: **BC Sustainable Energy Association and Sierra Club BC**
INFORMATION REQUEST ROUND NO: 1
TO: **BC Hydro**
DATE: **November 17, 2015**
PROJECT NO: **n/a**
APPLICATION NAME: **BC Hydro 2015 Rate Design Application**

1.0 Topic: Legal framework
Reference: Exhibit B-1, p.1-1; section 2.2.1 Legal Regime

“The purpose of the Application is to update BC Hydro’s default rate structures and Electric Tariff Terms and Conditions to reflect current conditions.” [p.1-1]

On BC Hydro’s website there is a page titled “Electric Tariff,” at https://www.bchydro.com/about/planning_regulatory/tariff_filings/electric-tariff.html. The page provides explanation and links as follows:

[Home](#) › [About BC Hydro](#) › [Regulatory Information](#) › [Tariffs](#) › Electric Tariff
Electric Tariff
Electric tariff

BC Hydro's service and prices are regulated by the British Columbia Utilities Commission (BCUC). The Electric Tariff contains the approved terms and conditions of distribution voltage service provided by BC Hydro as well as the approved rates for service at distribution voltage and transmission voltage.

Additional terms and conditions of transmission voltage service are contained in Tariff Supplements 5 and 6.

The following tariff information is provided for your convenience. If there are differences between this material and the official printed versions of BC Hydro's Tariffs, the official version approved by the BCUC shall prevail.

- [Electric Tariff](#) [PDF, 5.0 MB]
- [Tariff Supplement 5 – Electricity Supply Agreement \(ESA\)](#) [PDF, 2.4 MB]
- [Tariff Supplement 6 – Facilities Agreement](#) [PDF, 1.4 MB]
- [Tariff Supplement 74 – Customer Baseline Load Determination Guidelines](#) [PDF, 2.1 MB]
- [Tariff Supplement 82 – Rules for LGS Prospective Growth Applications](#) [PDF, 9.9 MB]

1.1 Do the files accessible from this webpage (https://www.bchydro.com/about/planning_regulatory/tariff_filings/electric-tariff.html) comprise all of “BC Hydro’s default rate structures and Electric Tariff Terms and Conditions” to the extent addressed by the present Rate Design Application?

- 1.2 If the RDA addresses (i.e., seeks changes in or confirmation of) any aspects of BC Hydro's default rate structures and Electric Tariff Terms and Conditions that are not included within the documents provided at the website referred to in the preceding question, please identify them and provide web links (URLs) for them.

2.0 Topic: Terminology
Reference: Exhibit B-1, section 1.4 Rate Design Terminology

- 2.1 Please define "bill impact" as BC Hydro uses the term in the Application.
- 2.2 Please confirm that BC Hydro's use of the term "bill impact" in the Application differs from the traditional meaning of the term in that traditionally the bill impact of a rate design is zero if the customer bill is the same under the test rate design as under the status quo rate design assuming the same consumption, whereas in the Application if the customer bill is the same under the test rate design as under the status quo rate design assuming the same consumption then the bill impact of the test rate design equals the Class Average Rate Change (CARC).

3.0 Topic: Rate Rebalancing
Reference: Exhibit B-1, 2.2.1.3 Direction No. 7, the Heritage Contract and Rate Rebalancing

"On July 15, 2015 B.C. Reg. 140/2015 was deposited, amending section 9 of Direction No. 7 by providing that in setting rates for BC Hydro for F2017-F2019, the Commission must not set rates for the purposes of changing the R/C ratio for a class of customers (referred to as the **Rate Rebalancing Amendment**). As a result, BC Hydro is not proposing rate rebalancing as part of 2015 RDA Module 1." [p.2-7]

- 3.1 Does BC Hydro intend to consider rate rebalancing for the period beginning F2020? If so, what form will this take in terms of consultation and application for Commission approval? If not, why not?

4.0 Topic: Division of Street-Lighting Rate Class
Reference: Exhibit B-1, section 4.6, Street Lighting

- 4.1 Has BC Hydro received any feedback, subsequent to the 2015 RDA stakeholder engagement process reported in the Application, regarding its proposal to divide the Street-Lighting Rate Class into Customer-Owned Street-Lighting and BC Hydro-Owned Street-Lighting? If so, please provide a brief synopsis.

5.0 Topic: RIB Pricing Principles
Reference: Exhibit B-1, section 5.2.5.1; Table 5-2; s.1.1.3

"BC Hydro's preferred pricing principle for F2017-F2019 is to continue with the Order No. G-13-14 pricing principle of uniformly increasing the Step 1 energy, the Step 2 energy rate and the basic charge by the amount of the approved RRA rate increases effective April 1, 2016, 2017 and 2018" [Table 5-2]

- 5.1 If BC Hydro's proposed RIB Pricing Principles were approved as proposed, would they remain in place after F2017-F2019, that is, unless and until at some time in the future the Commission was to approve a change?
- 5.2 In BC Hydro's view, should the Commission approve permanent continuation of the Order No. G-13-14 pricing principle of uniformly increasing the Step 1 energy, the Step 2 energy rate and the basic charge by the amount of the approved RRA rate increases? Why or why not?

6.0 Topic: RIB Rate Conservation
Reference: Exhibit B-1, p.5-3

"The RIB is expected to have delivered approximately 480 GWh/year in cumulative conservation over the first ten years of implementation (October 2008 through F2017)." [underline added]

- 6.1 Please explain what "gigawatt hours per year" and "cumulative conservation" means in this context.
- 6.2 Please provide an analogy for 480 GWh/year in terms of, say, average annual household electricity consumption.

7.0 Topic: RIB Rate pricing principles
Reference: Exhibit B-1, section 5.2.5.1, F2017-F2019 Pricing Principles

"*Option 1* (BC Hydro's proposal) would continue the Commission Order No. G-13-14 approach of applying RRA rate increases equally to all three RIB rate pricing elements. The effect of Option 1 would be to maintain the current differential in percentage terms between the Step 1 and Step 2 energy rates, and by extension, a Step 2 energy rate that currently exceeds the upper range of BC Hydro's LRMC. Since all components of the rates go up by the RRA rate while the DARR is forecasted to hold steady at 5 per cent for F2016 to F2019, the bill impacts for all customers is at the RRA rate increase (Direction No. 7 rate caps) in [Table 5-8](#), as follows:..." [p.5-34, underline added]

- 7.1 Does BC Hydro agree that under the traditional definition of "bill impact" the Option 1 RIB Rate pricing principles has no bill impacts? And that, in contrast, all the alternative RIB rate pricing principles do have bill impacts?

8.0 Topic: RIB Rate, Flat Rate
Reference: Exhibit B-1, s.5.2.4.1

"3. Bill impacts are part of the Bonbright customer understanding and acceptance criterion. BC Hydro's primary concern with a Residential flat rate is that it cannot be achieved without imposing significant bill impacts on most customers. As discussed at Workshop 9a, under a flat rate bills would go up for most customers, including low income customers, while

bills would go down for larger consuming residential customers. [Figure 5-13](#) and [Figure 5-14](#), and [Table 5-3](#) and [Table 5-4](#), illustrate the estimated bill impact distribution for flattening of the RIB rate in F2017 (relative to BC Hydro's RIB Pricing Principles):...

(b) [Table 5-4](#) shows that only 9 per cent of low income customers would be better off under a flat rate as compared to the RIB rate;" underline added

8.1 How many Low Income Residential customers would be worse off under a flat rate as compared to the RIB rate? (i.e., the number as distinct from the percentage.)

8.2 Please provide an estimate of the number of people who are within the households of the Low Income Residential customers who would be worse off under a flat rate as compared to the RIB rate. If necessary, please assume that household size is same for Low Income Residential customers who would be worse off, and better off, under a flat rate as compared to the RIB rate.

"d) For typical customers consuming at about the median, the nominal bill increase from the status quo RIB rate is about \$100 per year. A similar bill increase is also estimated for the median low income customer and the median low income customers with electric heat ([Table 5-4](#))." [pp.5-23 to 5-24]

8.3 For the Low Income Residential customers who would be worse off under a flat rate as compared to the RIB rate, please provide the average nominal annual bill increase from the status quo RIB rate.

8.3.1 For the Low Income Residential customers who would be better off under a flat rate as compared to the RIB rate, please provide the average nominal annual bill decrease from the status quo RIB rate.

8.4 For the Electric Heat Residential customers who would be worse off under a flat rate as compared to the RIB rate, please provide the average nominal annual bill increase from the status quo RIB rate.

8.4.1 For the Electric Heat Residential customers who would be better off under a flat rate as compared to the RIB rate, please provide the average nominal annual bill decrease from the status quo RIB rate.

8.5 Where the terms "better off" and "worse off" are used on pages 5-22 to 5-24, is the 4.5% general rate increase included or excluded? Is a customer who is neither better off nor worse off, between a Flat rate and the RIB rate, a customer who has an annual bill increase of 4.5%?

8.5.1 Please confirm, or otherwise explain, that in [Table 5-4](#) the column labeled "Median Bill of Segment" does include the 4.5% general rate increase, but in the column labeled "Median Bill Difference

from SQ” the general rate increase is netted out (because it applies to both the Flat rate scenario and RIB scenario).

9.0 Topic: E-Plus Rate

Reference: Exhibit B-1, section 5.3 Residential Dual Fuel Interruptible (E-Plus) Rate

9.1 Please explain why BC Hydro has chosen not to proceed with an option in which the E-Plus rate is phased out as of a date certain and in the meantime is amended to be non-interruptible.

10.0 Topic: RIB Rate Report Proceeding

Reference: Exhibit B-1, section 5.5, Methodologies for Minister Residential Inclining Block Rate Letter; Exhibit A-5, BCUC IR 1.47.2.1

“47.2 Please comment on the feasibility and usefulness of responding to the Minister’s Question 3 for total household energy-use (i.e. all fuel sources).”

“47.2.1 What data, listed below, does BC Hydro have to examine total household energy use?

- a) Data on number and amount of consumption of non-electric end-uses from the Residential End-Use Survey (REUS)?
- b) Estimates of the cross-elasticity of demand between electricity and natural gas prices?
- c) Other?”

10.1 Will the joint Conservation Potential Review being conducted by BC Hydro, FortisBC Energy Inc. (natural gas), and FortisBC Inc. (electricity) with involvement by Pacific Northern Gas (natural gas) produce information on total household energy-use (i.e. all fuel sources)?

10.2 What is the current status of the joint Conservation Potential Review?

10.3 When is the joint Conservation Potential Review expect to produce results? Would this be in time for the results to be used in the Commission’s response to the Minister’s RIB Rate letter?

11.0 Topic: RIB Rate Report Proceeding

Reference: Exhibit B-1, section 5.5.1.4, BC Hydro Residential Rate Modelling for Stakeholder Engagement; Exhibit A-5, BCUC IR 1.49.3

11.1 Does “a theoretical two-tier pricing system in which each and every resident experiences the same percentage of electricity consumption in Block 2” produce the same bill as a flat rate?

11.1.1 During the original proceeding regarding BC Hydro’s then-proposed RIB rate was this potential design option considered for rate modelling and rejected because it is the equivalent of a flat rate?

11.1.2 Please confirm that the Residential rate design modelling that BC Hydro did for the 2015 RDA stakeholder engagement process includes a flat rate design.

12.0 Topic: RIB Rate Report Proceeding
Reference: Exhibit B-1, section 5.5, Methodologies for Minister Residential Inclining Block Rate Letter

12.1 Has BC Hydro received any directions or clarification from the Minister or Ministry regarding the response to the Minister's request for a report on the RIB rates? If so, please provide any such directions or clarification.

12.2 In BC Hydro's view, what is the scope of the report on the RIB rates in relation to BC Hydro residential electricity customers who are not served by BC Hydro's integrated system.

12.2.1 Does BC Hydro have any residential customers who are not served by the integrated system and who do have access to natural gas?

12.3 BC Hydro's material in sections 5.5 and 5.6 includes what could be called "results" in addition to "methodology." Please confirm that BC Hydro intends to provide a further report that will contain more comprehensive results than those provided in section 5.5 and 5.6.

12.4 The Minister's second question is "What evidence is available about high bill impacts [greater than 10 percent as a result of the adoption of the residential inclining block rates] on low income customers?" Please provide the definition of "bill impact" that BC Hydro will use in the RIB rates report.

13.0 Topic: RIB Rate Report Proceeding
Reference: Exhibit B-1, section 5.5.2, Defining Factors Leading to High Energy Use

"BC Hydro considered but rejected number of occupants as a factor. As noted in the 2014 REUS, while the average annual household consumption of electricity generally steps up with the number of individuals in the home, the number of household occupants is correlated with the physical size of the home in terms of floor area." [p.5-69]

13.1 Please explain the statement quoted above. Does BC Hydro propose to use floor area as a factor for the analysis? If higher than average annual electricity consumption is correlated with number of occupants then why not use number of occupants as one of the factors for analysis?

14.0 Topic: RIB Rate Report Proceeding
Reference: Exhibit B-1, section 5.5.3, Approach to Address Minister Residential Inclining Block Rate Letter; Exhibit A-5, BCUC IR 1.49, cross-subsidy

- 14.1 Is there an alternative to a cost of service approach for the analysis of whether there is a cross-subsidy between customers within the same rate class? If so, please describe it and discuss whether it should be used for the RIB rates report in addition to a cost of service approach.
- 14.2 Further to BCUC IR 1.49.1.1, please comment on the usefulness of BC Hydro including in the report on the Minister's Question 1 a discussion of:
- 14.2.1 the extent to which each of the two categories of residential customer benefits from the Heritage Assets, and, if so, how this applies to FBC and whether this requires consideration of the Power Purchase Agreement, and
- 14.2.2 the postage stamp principle, and whether geographically related differences in the utility's cost of providing service are to be included, or excluded, from the analysis of cross-subsidization.
- 14.3 Further to BCUC IR 1.49.1.1, please confirm, or otherwise explain, that BC Hydro's report on whether there is intra-class cross-subsidization will not rely on the legal fact the Commission has already determined that the BC Hydro RIB rates are fair, reasonable and not unduly discriminatory under the *Act*, bearing in mind among other things the varying access to heating fuels among residential customers.
- 14.4 Further to BCUC IR 1.49.1.1, please comment on the usefulness of BC Hydro including in the report on the Minister's Question 1 a discussion of:
- 14.4.1 whether determining whether there is a cross-subsidy between the two groups is effectively reconsidering previous Commission decisions approving the BC Hydro and FBC RIB rates, and
- 14.4.2 the consequences or potential consequences if a cross-subsidy is found to exist.

15.0 Topic: RIB Rate Report Proceeding
Reference: Exhibit B-1, section 5.5.3, Approach to Address Minister Residential Inclining Block Rate Letter; Exhibit A-5, BCUC IR 1.48, access to natural gas; BCUC IR1.49, cross-subsidy

In the Commission's RIB Rate Report proceeding, BCSEA-SCBC's Submission dated October 16, 2015, states on page 3 that:

"BCSEA-SCBC do not disagree with BC Hydro's proposed use of a "community" definition of access to natural gas.

It is noted, however, that the community approach [to defining 'access to natural gas'] yields a relatively small number of electricity customers being in the category of "without access to natural gas." BC Hydro lists as examples customers in Clearwater, Golden, Invermere, Port Hardy and Valemount.."

- 15.1 Does BC Hydro agree that the community approach to defining ‘access to natural gas’ yields a relatively small number of electricity customers being in the category of “without access to natural gas”? If not, please explain. If so, is this a problem in terms of responding to the spirit of the Minister’s request?
- 15.2 Would it be feasible to define “access to natural gas” in terms of the actual presence of natural gas appliances in the household? Could BC Hydro’s REUS data on heating fuel types be used as a proxy for access to natural gas, defined in this way?
- 15.2.1 In BC Hydro’s view, would such an approach correspond more closely to the intention of the Minister’s request?
- 15.3 Please either provide a complete list of communities in BC Hydro’s service territory that BC Hydro considers to be “without access to natural gas” for the purpose of the RIB rates report, or confirm that this information will be provided later in BC Hydro’s full report.

In the Commission’s RIB Rate Report proceeding, BCSEA-SCBC’s Submission dated October 16, 2015, states further, on pages 3-4, that:

“BCSEA-SCBC simply note that using the community definition means that the putative cross-subsidization is between (a) all of the residential electricity customers in the communities without natural gas, including customers who have electric heat and those who use other heating fuels, and (b) residential electricity customers in all other areas of the utility’s service territory, including those who use electric heat, those who use natural gas for heating, and those who use other heating fuels. This is very different than an analysis in which “without access to natural gas” is defined as not having natural gas heating (space or water) in the premises for whatever reason. [footnote omitted] In the latter case, the cross-subsidization analysis is between (a) residential electricity customers who don’t use natural gas heating (for whatever reason), and (b) residential electricity customers who do use natural gas heating. Unfortunately, it is not entirely clear which definition of “without access to natural gas” the Minister had in mind.” [underline added]

- 15.4 Please provide BC Hydro’s responses to the statements quoted above.
- 15.4.1 Does BC Hydro agree that the question of whether there is intra-class cross-subsidization between customers in (a) several communities such as Clearwater, Golden, Invermere, Port Hardy and Valemount and (b) all other parts of BC Hydro’s service area is very different than the question of whether there is intra-class cross-subsidization between customers who (a) don’t use natural gas heating (for whatever reason), and (b) do use natural gas heating?
- 15.4.2 Is it BC Hydro’s view that the Minister’s request contemplates a community approach to the definition of “without access to natural gas”?

16.0 Topic: RIB Rate Report Proceeding
Reference: Exhibit B-1, section 5.6, BC Hydro Residential Demand Side Management Programs

In the Commission's RIB Rate Report proceeding, BCSEA-SCBC's Submission dated October 16, 2015, states on page 6 that:

"In BCSEA-SCBC's view, question 4 is not adequately answered by merely describing existing DSM programs (which is what might be inferred from the utilities' responses). BCSEA-SCBC recommend that the Commission clarify that the core of question 4 is what is the potential for existing DSM programs to reduce electricity usage and hence customer bills. For example, what is the potential for an existing DSM program to be ramped up, say with higher incentives, in order to achieve increased energy savings?"

16.1 Will BC Hydro include in its report to the Commission on the Minister's question an examination of the potential for existing DSM programs to reduce electricity usage and hence customer bills?

16.1.1 For example, will BC Hydro address the potential for an existing DSM program to be ramped up, say with higher incentives, in order to achieve increased energy savings?

16.2 Does BC Hydro agree that the Minister's Question 5 question 5 is not limited to customers without access to natural gas and asks for the Commission to report on options on additional DSM programs for residential customers generally and for low income residential customers, both within the context of the current regulatory environment? If not, why not?

16.3 Further to BC Hydro's statements on pages 5-72 and 5-73 regarding "the current regulatory environment" referred to in the Minister's Question 5, does BC Hydro agree that the DSM Regulation and sections 44.1 and 44.2 of the *Act* are the main factors? Please describe BC Hydro's understanding of "the current regulatory environment" referred to in the Minister's Question 5.

17.0 Topic: Small General Service Basic Charge
Reference: Exhibit B-1, section 6.2.3.2 SGS Basic Charge Cost Recovery

17.1 BC Hydro proposes raising the SGS Basic Charge from about 33% cost recovery to about 45% cost recovery. Please quantify the impact of this change on conservation. Please specify the elasticity assumptions used in the response.

18.0 Topic: Medium General Service, Large General Service, Conservation
Reference: Exhibit B-1, section 6.3 Medium General Service; section 6.4 Large General Service

BC Hydro proposes to change the existing two-part energy rates and three step demand rates for MGS and LGS to flat energy rate .

- 18.1 Further to BC Hydro's response to BCUC IR 1.56.1.1, does BC Hydro consider that the improved customer understanding associated with a flat rate would contribute to increased natural conservation? If so, can this be quantified?
- 18.2 Does BC Hydro have, or will it develop, a communications strategy for the change to flat MGS and LGS rates designed to foster increased conservation? What elements will be included?
- 18.3 Will BC Hydro develop new, or package existing, DSM measures for MGS and LGS customers aimed at maximizing the opportunity for the change to flat rates to be associated with increased conservation? If so, please describe. If not, why not?
- 18.4 Will BC Hydro identify MGS and LGS customers who have or would have had conservation opportunities under the existing rate structures that would be lost or impeded by a change to a flat rate? Will BC Hydro work with such customers to find ways to implement these conservation opportunities under a flat rate scenario?
- 18.5 BC Hydro proposes that the new MGS and LGS rate designs (flat energy and flat demand) would come into effect as of April 1, 2017. Does BC Hydro agree that one advantage of this effective date is that it gives BC Hydro roughly one year from the Commission's decision on the Application within which to develop and implement a strategy for maximizing the potential conservation opportunities inherent in the change to flat energy and demand rates?

19.0 Topic: LGS and MGS New Account Rule
Reference: Exhibit B-1, section 6.6, Requested Order for the LGS and MGS New Account Rule, p. 6-71

- 19.1 Would the proposed "100 per cent Part 1 Pricing" for New Accounts cause a cross-subsidy? If so, how large? If not, why not?
- 19.2 Would it be feasible for the New Account rate to be set on an interim and refundable basis at a rate that BC Hydro estimates would be equivalent to the proposed flat rates for LGS and MGS customers?
- 19.3 Please confirm, or otherwise explain, that the proposed "100 per cent Part 1 Pricing" for LGS and MGS New Accounts would expire when the proposed flat rates for LGS and MGS come into effect.
- 19.4 Is it BC Hydro's intention that proposed "100 per cent Part 1 Pricing" for LGS and MGS New Accounts would remain in place indefinitely if the Commission does not approve the flattening of the LGS and MGS rates?

20.0 Topic: Nomenclature
Reference: Exhibit B-1, Appendix B, Glossary and Abbreviations

- 20.1 Please provide a table showing for each of BC Hydro's rate schedules and tariff supplements, existing and proposed, the identification number (e.g., RS 1853), the common name (e.g., IPP Station Service), and a very brief description. The intention is to have a searchable reference for use in this proceeding. Obsolete rates could be omitted. Please also include informal terms such as RS 15xx. If BC Hydro already has a list of rate schedules and tariff supplements then please provide a copy of it instead of the requested table.