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September 30, 2015

**Via Email**  
**Original via Mail**

British Columbia Utilities Commission  
6<sup>th</sup> Floor, 900 Howe Street  
Vancouver, BC  
V6Z 2N3

Attention: Ms. Erica M. Hamilton, Commission Secretary

Dear Ms. Hamilton:

**Re: Residential Inclining Block Rate Report to the Government of British Columbia  
FortisBC Inc. Submissions**

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On August 17, 2015, the British Columbia Utilities Commission (the Commission) issued Exhibit A-1 in the above noted process that requested from both the British Columbia Hydro and Power Authority (BC Hydro) and FortisBC Inc. (FBC or the Company) submissions on a number of issues related to the Residential Conservation Rates offered by the respective companies.

The information is intended to aid the Commission in its preparation of a report (the Report) to the Government of British Columbia on five specific questions contained in a letter dated July 6, 2015 from Minister Bennett, the Minister of Energy and Mines, concerning the impact of the BC Hydro and FBC residential inclining block rates.

In accordance with Exhibit A-1, this submission does not include information that attempts to directly answer the five specific questions. Rather, the purpose here is to provide a “...detailed outline of the methodology(ies) for the report the utilities will submit to the to the Commission on the five questions posed by Minister Bennett...”

In responding to the Commission’s requests, the Company is mindful that Exhibit A-1 notes that, “[t]his proceeding is not a process to alter the rates”, and that, “...any analysis of higher greenhouse gas emissions, electricity conservation, revenue neutrality resulting from the residential inclining block rates and any analysis of alternative rate structures...” are specifically excluded as beyond the scope of what the Commission Report will consider.

Within the context of the above, in this submission, FBC will provide responses to items i, ii,

iii on page 3 of Exhibit A-1, which are repeated below.

- i. A detailed outline of the methodology(ies) for the report the utilities will submit to the Commission on the five questions posed by Minister Bennett including:
  - a. How they intend to define “low-income” customers;
  - b. How they intend to define “factors” that lead to high energy use;
  - c. For each of the five questions, the general approach they intend to take to answer the question;
  - d. Any other relevant method they will use to gather information or answer the questions posed within the Minister’s letter of July 6, 2015.
- ii. Any other relevant issues with the rates that have not previously been adequately addressed but should be reported on in the utility reports to the Commission and the Commission’s report to government; and
- iii. Comments on the Commission’s proposed process and suggested timing.

## **I Methodologies**

### **a. Defining Low Income.**

The Company proposes to use the Low income cut-offs (LICO) as provided by Statistics Canada. A brief description of LICOs as taken from the Statistics Canada website is provided below.

*“The low income cut-offs (LICOs) are by far Statistics Canada’s most established and widely recognized approach to estimating low income cut-offs. In short, a LICO is an income threshold below which a family will likely devote a larger share of its income on the necessities of food, shelter and clothing than the average family. The approach is essentially to estimate an income threshold at which families are expected to spend 20 percentage points more than the average family on food, shelter and clothing.”<sup>1</sup>*

This approach is consistent with that taken by BC Hydro

### **b. Defining “factors” that lead to high energy use.**

Defining the factors that lead to high energy use is necessary to provide context for the Government’s Question #3 which seeks to identify what evidence is available about factors that lead to high energy use and, therefore, bill impacts for customers without access to natural gas, including low income customers.

The Company believes that a logical approach is to determine the specific

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<sup>1</sup> <http://www.statcan.gc.ca/pub/75f0002m/2009002/s2-eng.htm#n1>

factors that should be examined.

It is also apparent that the “bill impacts” being considered are the “high bill impacts” mentioned in Question 2 (greater than 10 percent as a result of the adoption of the residential inclining block rates), and therefore that “high energy use” is use that results in those bill impacts.

Also, it is evident that since Question 3 asks about factors that lead to high energy use and, therefore, bill impacts for customers without access to natural gas, the lack of availability of natural gas cannot itself be one of the factors.<sup>2</sup>

As such, FBC proposes to provide to the Commission data on consumption by housing type and primary heating fuel as these are the primary factors that drive electricity usage. As noted below in the section regarding questions 2, and 3, additional information can be provided should additional research be conducted upon Commission direction.

**c. Approach to answering the five questions.**

**1. Do the residential inclining block rates cause cross-subsidy between customers with and without access to natural gas?**

The Company believes that whether or not a cross-subsidy exists between groups of customers is inherently related to cost-of-service considerations. Cross-subsidy exists between consumers of a single output when different categories of consumers are treated in “economically unjustified” ways.<sup>3</sup>

In order for the Commission to provide the government information on this question it will be necessary to determine whether there are cost differences in serving the two groups - those with and without natural gas.

FBC will provide any information that it has available in this regard however; due to the nature of data that is aggregated within a Cost of Service Analysis COSA, such information is limited.

The issue of the impact of the RCR on those customers without access to natural gas was fully explored and documented in Section 2.4 of the RCR Information Report filed by FBC on November 28, 2014.

**2. 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?**

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<sup>2</sup> While this is the case within the context of the report, having natural gas as an available option would provide customers with the ability to choose the energy source that provides the best economic choice.

<sup>3</sup> *Contrasting approaches to the ‘problem’ of cross-subsidy.* – David Heald 1996

**3. *What evidence is available about factors that lead to high energy use and, therefore, bill impacts for customers without access to natural gas, including low income customers?***

In response to questions 2 and 3, the Company provides the following.

FBC has information available from its 2012 Residential End-Use Study (REUS) data that will allow a linkage to individual accounts, however, further analysis will be required to examine the factors identified in section I(B) with respect to income levels.

Upon Commission direction, FBC can engage its REUS research partner to undertake additional analysis of the REUS dataset to address aspects of the questions posed in the Minister's RIB Report Letter. The REUS surveyed direct customers as well as residents from municipalities which are wholesale customers of FBC. The sample size is relatively small and relies on self-reporting for questions related to demographics – including income level.

There are approximately 1,670 respondents for FBC's 2012 REUS. In contrast, BC Hydro conducted extensive Residential rate design modelling for its RDA stakeholder engagement process. The analysis was informed by a survey of 10,000 customers.<sup>4</sup> BC Hydro notes that this information will be relied upon for the purposes of addressing questions 1, 2 and 3. FBC has not conducted similar research to date, and as such is constrained by sample size in addressing these questions.

The research company will define the low income households and provide an incidence of low income customers among FBC's residential customer base. Data in the 2012 REUS would be leveraged using Statistics Canada data to identify the incidence of low income households within the REUS and, via extrapolation, within FBC's customer base.

Once each REUS participant is defined as either low income (i.e., meeting LICO criteria) or non-low income, customer data would be analyzed to understand differences between the two income groups using factors known to contribute to high energy use, such as:

- size of house (square footage)
- number of occupants
- location (climate)
- space heating fuel
- domestic water heating fuel
- The presence, but not the age or efficiency, of other electric high use end-uses (e.g., heated pools, hot tubs, etc.)

The research company can, at additional cost, analyze the impact of the RCR

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<sup>4</sup> BC Hydro 2015 RDA, Section 5.5.1.4.

on low income customers from the above work, using participant consumption kWh that was extracted at the time the REUS sample was taken. It should be noted that there will be consultant costs and FBC staff time associated with this analysis.

**4. *What is the potential for existing Demand Side Management programs to mitigate these impacts?***

The Company proposes to provide a list and brief description of existing programs that customers can participate in that can impact the factors identified in response to question 3 above that lead to high energy use.

**5. *Within the current regulatory environment, what options are there for additional Demand Side Management programs, including low income programs?***

The Company will provide a discussion of any potential additional DSM programs, or potential modifications to existing programs, that could be undertaken within the existing regulatory environment.

**d. Other relevant methods to gather information.**

The Company has not identified other methods that may be used to gather information.

**II Other relevant issues**

FBC has not identified other relevant issues.

**III Comments on the Commission's proposed process and suggested timing.**

The Company is able to work within the timeframe suggested by the Commission.

If further information is required, please contact Corey Sinclair at (250) 469-8038.

Sincerely,

**FORTISBC Inc.**

***Original signed by: Corey Sinclair***

**For:** Diane Roy