FortisBC Inc. 2017 Cost of Service Analysis and Rate Design Application
Project No. 3698899

Anarchist Mountain Community Society and
Regional District of Okanagan-Similkameen
Information Request No. 1 to FortisBC
Questions 1 to 12

1.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 4 Public Consultation and Appendix F

In Appendix F, FBC provides copies of feedback received during the consultations. However, it appears that FBC has omitted some, if not all, of the feedback it received via its "electricityratedesign@fortisbc.com" website.

Request:

1.1 Please provide copies of all feedback that FBC received via its "electricityratedesign" website touching on the following subjects in this review

a) the RS1 Residential Conservation Rate, and

b) the RS1 basic charge.

2.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1.5, Page 73, Table 6-10: FBC Residential Rate Proposal

Table 6-10 is difficult to understand since the percentage changes in annual bill impacts are calculated on different base amounts.

Request:

2.1 Please provide a version of Table 6-10 showing annual bill impacts in both dollar amounts and percentage changes.

3.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1 Residential Rates

Under FBC's two-tier rate system, "high consuming" customers pay higher average rates than do "low consuming" customers. The requested information is required to understand the different average annual rates charged to different customers under the two-tier rate system and the associated bill impacts.

Request:

3.1 Please provide the following information for each year from July 1, 2012 to the end of 2022 for each of FBC's groupings of customers by annual consumption as shown in the various tables in Section 6.1 (i.e. for customers using 0 to 10,000 kWh; 10,000 to 15,000 kWh …... above 35,000 kWh)

(1) Number of Customers

(2) Average annual rate under RCR

(3) Average annual bill under RCR

(4) Average annual bill if charged that year's flat rate instead of the two-tier rate

(5) The amount above or below the flat rate paid by the average customer [i.e. item (3) minus item (4)]

(6) The total amount above or below the flat rate paid by the sum of all the customers in that grouping [i.e. item (5) multiplied by item (1)]

4.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1 Residential Rates and FBC Website: Natural Gas; Homes; Switch to Natural Gas; Southern Interior; Approximate Annual Fuel Cost – Space Heating

FBC's analysis does not take into account that electricity consumption accounts for virtually all of the total energy bill of many "high" electricity customers while representing only a fraction of the total energy bill of many "low" electricity users.

Therefore, FBC's analysis does not show the full energy impact on different customers associated with switching from two-tier rates to a flat rate.

Request:

4.1 On the FBC natural gas website, there is a comparison of the cost of home heating by natural gas versus electricity for a typical single family home (2300 square feet) in the Southern Interior. For this same typical family home, provide a comparison of fuel costs and consumption levels for all of the end-uses as per the table below under the assumption that the home with access to natural gas uses this fuel for both space and water heating.

Natural Gas Home:

Annual Fuel Cost Space Heating	$560
Annual Fuel Cost Water Heating	
Annual Fuel Cost Other End-Uses (eg Appliances, Lighting)	

Total Annual Fuel Costs

Total Annual Natural Gas Consumption (GJ)

Total Annual Electricity Consumption (kWh)

All Electric Home:

Annual Fuel Cost Space Heating	$2480
Annual Fuel Cost Water Heating	
Annual Fuel Cost Other End-Uses (eg Appliances, Lighting)	
Total Annual Fuel Costs	
Total Annual Electricity Consumption (kWh)	

5.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1 Residential Rates and FBC Website: Natural Gas; Homes; Switch to Natural Gas; Southern Interior; Approximate Annual Fuel Cost – Space Heating

The higher rates charged under the two-tier system to customers using electricity for space and water heating have increased the incentive for such customers to switch to natural gas where it is available. On the FBC natural gas website, FBC states

> "Heating your home and water consumes a whopping 78% of the total energy used in your home. But with natural gas space heating equipment up to 98% efficient, you'll see standout savings when you compare natural gas to other types of fuel or energy choices".

Request:

5.1 For each year, from 2012 through 2017, please provide

- the number of FBC electricity customers that switched to natural gas;
- the resulting increase in natural gas sales and associated greenhouse gas emissions; and
- the change in FBC's and its affiliated gas utility company's combined profits from natural gas and electricity operations resulting from this switching.

6.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1.4 Residential Rate Options, Page 60

On page 60, FBC states

> "In its 2011 Application for Residential Inclining Block (RIB) Rates, FBC suggested that a constraint on annual bill impact be considered in evaluating rate options …"

namely,

> "… that 95 percent of customers should have bill increases no greater than 10 percent as compared to existing rates".

Request:

6.1 Why did FBC maintain, in its 2011 Application, that there should be no constraint on the bill impacts on the remaining 5 percent of customers, many of whom are entirely dependent on electricity for space and water heating?

6.2 What range of rate increase did FBC expect the remaining 5 percent of customer to experience and what was the actual range of increase?

6.3 What rate-making principle supported FBC's decision related to the 5 percent of customers who would receive a bill increase of greater than 10 percent?

7.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1.4 Residential Rate Options

FBC's application presents a comparative assessment of two options: Immediate return to the flat rate (Table 6-8) and a Transitional return to the flat rate (Table 6-10). This assessment only examines the "principle" of constraining annual bill impacts for the majority of customers.

FBC provides no comparative assessment of the two options against the rate-making principles of "price signals that encourage efficient use" and "avoidance of undue discrimination".

Nor does FBC undertake any comparative analysis of the two options against the provincial government's policy objectives related to reducing emissions that contribute to climate change and air pollution.

Request:

7.1 Please provide FBC's comparative assessment, with numerical examples where possible, of the two options – immediate and transitional return to the flat rate – against the following objectives:

- price signals that encourage efficient use;
- avoidance of undue discrimination;
- mitigation of air emissions that contribute to climate change; and
- mitigation of emissions that contribute to air pollution.

8.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1.4 Residential Rate Options, pages 60-61; BC Hydro's 2008 Residential Inclining Block Application dated February 2008, page 1-9; FBC's Residential Inclining Block Application to the British Columbia Utilities Commission dated September 30, 2016, page 7; FBC's Residential Conservation Rate Information Report dated October 31, 2013, page 33.

On pages 60-61, FBC lists "promote conservation" as one of its "other principles"; supplemental to its "Rate Design Principle" of encouraging efficient use.

On page 1-9 of its 2008 Residential Inclining Block Application of February 2008, BC Hydro stated

> "The desire to incorporate an incentive for conservation into its rates has prompted BC Hydro to apply for approval of a rate structure that sends a price signal to customers that better reflects the higher long-run cost of new electricity supply. In the current and foreseeable future, where the long-run cost of new electricity supply is substantially higher than the embedded cost of BC Hydro's existing assets, such a rate structure sends price signals that will encourage economically efficient electricity consumption choices and, thus, electricity conservation".

On page 7 of the Residential Inclining Block Rate Submission to the British Columbia Utilities Commission of September 30, 2016, FBC stated

> "The fact that the Tier 2 rate is 36% higher than the LRMC (Long-Run Marginal Cost) suggests that the Tier 2 rate exceeds the level that leads to economically efficient purchase decisions on the part of customers".

On page 33 of the Residential Conservation Rate Information Report of October 31, 2013, FBC stated

> "…the Company accepts that although the current RCR is cost based in the sense that it is based on the flat rate confirmed pursuant to a cost of service analysis (COSA), the levels of the given rate components are not, and are based on policy and legislative imperatives for rates reflecting a conservation price signal".

Request:

8.1 Please elaborate on the “policy and legislative imperatives” that require a “conservation price signal” that is above the Long-Run Marginal Cost of new electricity generation; citing the relevant policy documents.

9.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1 Residential Rates, page 61.

FBC's “promote conservation” principle, as reflected in the design of the RCR, does not distinguish between peak and non-peak periods.

Request:

9.1 Please describe the benefits from customers conserving electricity during non-peak periods.

10.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1.4, Residential Rate Options, Page 61

FBC states on page 61

> “it is in agreement with the customer sentiment that the impact of the RCR has become overly burdensome on high consuming customers, but also notes that the BCUC has determined that it does not find that the RIB rate causes a subsidy between customers in areas with and without access to natural gas”.

The second part of this statement does not appear to be relevant to the first part because there are both high electricity consuming customers and low electricity consuming customers in the category of customers that are without access to natural gas.

Request:

10.1 Please elaborate on what FBC meant by “overly burdensome” in the context of the comment cited above.

10.2 Does FBC’s analysis show that the revenue-to-cost profile for high electricity consuming customers is the same as the revenue-to-cost profile for low electricity consuming customers within RS1?

10.3 Does FBC’s analysis reveal any cross-subsidy between the high electricity consuming customers and the low electricity consuming customers?

11.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 6.1.5, Default Residential Rate Recommendation, Page 72 and Section 6.1.4.2 Changes to the Existing RCR, Page 65

On page 72, FBC states

> "…continuing with the RCR into the future …may create inequity amongst customers with regard to the ability to take steps to reduce consumption".

This statement implies that over the past five years, there was "equity" amongst customers with regard to the ability to reduce consumption and hence the impact of the RCR.

Request:

11.1 Does FBC assert that over the past five years there has been equity amongst customers with regard to the ability to take steps to reduce consumption and the impact of the RCR on billing? If so, please provide evidence to support this assertion.

12.0 Topic: Residential Rate (RS1) Design

Reference: FortisBC Application dated 22 December 2017 (Exhibit B-1), Section 8 Optimal Time Of Use Rates

FBC states, on page 110, the "objective is to incent customers to shift the time of consumption in a manner that would allow FBC to reduce costs or generate incremental revenue such that a rate benefit will accrue to all customers".

Request:

12.1 What end-uses does FBC believe residential customers are most likely to shift to non-peak periods?

12.2 What percentage of total residential electricity consumption does FBC estimate will opt for TOU rates?

12.3 What cost savings and revenue gains does FBC estimate will result from this load shifting?

12.4 What portion of these savings/revenues does FBC expect to credit back to TOU customers and what would their average residential rate be as compared to the default rate being paid by non-TOU customers?