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Utilities Commission

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August 20, 2018

Sent via eFile

FORTISBC INC. 2017 COST OF SERVICE ANALYSIS & RATE DESIGN EXHIBIT A-13

Mr. David Bursey
Counsel to AMCS and RDOS
Bennett Jones LLP
2200-1055 West Hastings Street
Vancouver, BC V6E 2E9
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Re: FortisBC Inc. – 2017 Cost of Service Analysis and Rate Design Application – Project No. 1598939 – Information Request No. 1 to AMCS/RDOS

Dear Mr. Bursey:

Further to British Columbia Utilities Commission Order G-101-18, enclosed please find British Columbia Utilities Commission Information Request No. 1 to Anarchist Mountain Community Society and Regional District of Okanagan-Similkmeen. In accordance with the regulatory timetable, please file your responses no later than Monday, September 10, 2018.

Sincerely,

Original signed by Ian Jarvis for:

Patrick Wruck
Commission Secretary

/jo

Attachment

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FortisBC Inc.
2017 Cost of Service Analysis and Rate Design Application

INFORMATION REQUEST NO. 1 TO AMCS/RDOS

1.0 **Reference:** **RESIDENTIAL CONSERVATION RATE**
Exhibit C3-7, AMCS/RDOS Evidence, pp. 5–6, 10, 17, 20, 24, 26, 27, Table 2.1; Exhibit B-1, Application, pp. 16, 63
Design of residential conservation rate

Page 5 of the evidence filed by the Anarchist Mountain Community Society & Regional District Okanagan-Similkameen (AMCS/RDOS) states the following:

> A properly designed two-tier RIB Rate must be cost-based, using the following design principles:
>
> 1. Tier 1 Rate equal to the Flat Rate;
> 2. Tier 2 Rate equal to the marginal cost of new supply; and
> 3. Threshold(s) set so that each customer has some consumption in Tier 2 but not so much as to be unable to avoid a bill increase by improving energy efficiency,

1.1 Please provide the source/reference material which supports the assertion that the three design principles stated in the above preamble are required for a "properly designed" two-tier Residential Inclining Block (RIB) Rate.

On page 16 of the FortisBC Inc. (FBC) 2017 Cost of Service Analysis and Rate Design Application (Application), FBC provides Dr. Bonbright's eight principles of rate design.

1.2 Please explain, with reference to AMCS/RDOS' description of a "properly designed two-tier RIB Rate", which Bonbright principles AMCS/RDOS considers should be given priority and why.

1.3 Please discuss AMCS/RDOS' view on the importance of the following Bonbright principles: (i) customer understanding and acceptance (Principle 4); and (ii) practical and cost effective to implement (Principle 5). Please discuss whether, in consideration of FBC's circumstances, AMCS/RDOS' "properly designed two-tier RIB Rate" would be aligned with these principles and explain why or why not.

Page 10 of AMCS/RDOS' evidence summarizes the "major conclusions" of British Columbia Hydro and Power Authority's (BC Hydro) 2014 RIB Evaluation Report, including the following: "35% of BC Hydro's customers 'never' saw the Step 2 price in 2012 while 25% of customers 'always' did and 40% of customers 'sometimes' did."

Page 20 of AMCS/RDOS' evidence states: "It is not possible for customers with half or three-quarters of their consumption in Tier 2 to eliminate the adverse bill impacts of the RCR [Residential Conservation

Rate] through energy efficiency improvements alone, particularly since they may not be energy inefficient in the first place."

1.4 In AMCS/RDOS' view, and with reference to its third principle of a "properly designed two-tier RIB Rate", what is the optimal percentage of customers that should see their consumption in Tier 2 and therefore would respond to the conservation price signal accordingly? Please provide support for this response.

1.5 What are the market signals that would suggest a threshold that results in too much energy being consumed at Tier 2 in such a manner that customers are unable to avoid a bill increase by improving energy efficiency? Please discuss.

AMCS/RDOS further states on page 5 of its evidence: "The most important residential consumption factor, by far, is whether the home uses electricity, rather than other fuels, for space and water heating, which together account for 78% of a typical home's energy consumption."

1.6 Please provide supporting data/references for the statement that space and water heating account for 78 percent of a typical home's energy consumption. As part of this response, please define a "typical" home and explain all assumptions which were made in determining the percentage of consumption related to space and water heating.

AMCS/RDOS provides an example on page 6 (Table 2.1) of its evidence showing a RIB Rate design with percentage or multiple thresholds.

1.7 Please explain the rationale for setting the Tier 2 threshold equal to 90 percent of each customer's total electricity consumption.

1.8 Please explain the basis for AMCS/RDOS' Tier 1 rate of $0.08 per kilowatt-hour (kWh).

1.8.1 As part of the above response, please confirm, or explain otherwise, that neither FBC's current Tier 1 rate nor its proposed flat rate is equal to $0.08 per kWh.

1.9 Please explain the basis for AMCS/RDOS' Tier 2 rate of $0.12 per kWh.

1.10 Please discuss whether AMCS/RDOS considers a "properly designed" RIB Rate (which includes percentage or multiple thresholds) to be more appropriate than a flat rate structure and explain why or why not.

1.11 If FBC were to implement a "properly designed" RIB Rate, would AMCS/RDOS support such a rate? Please explain why or why not.

Page 17 of AMCS/RDOS' evidence states the following:

> By setting the Tier 1 and Tier 2 rates based on FBC's 95%/10% principle, the Tier 1 Rate was set below the Flat Rate. And by approving a "pricing principle" that would see the Tier 2 Rate increasing faster over time than the Tier 1 Rate, the Tier 2 Rate did not reflect the marginal cost of new supply.

1.12 Please discuss AMCS/RDOS' recommendations towards how the annual revenue requirement increases should be coordinated with adjustments to rate design. Should there be a rate design application following every revenue requirement adjustment in order to ensure that the rate design principles are sound? If so, what are the costs/benefits of such a requirement?

1.13 How does AMCS/RDOS recommend that FBC should monitor its marginal cost of new supply? What are the costs/benefits of such an exercise?

1.14 Does AMCS/RDOS agree that marginal cost of new supply could change from time to time for any utility, for example as a result of changes in technology, construction costs, or marginal cost of market purchases?

1.15 Please explain how AMCS/RDOS would propose to ensure that the Tier 2 rate is always aligned with marginal cost of new supply at any given point in time. As part of this response, please address the following points:

- Should Tier 2 be monitored routinely to ensure it still aligns with marginal cost? If so, should this be done annually, every 5 years, or some other time period? Would Tier 1 then be adjusted to recover the residual revenue requirement?
- Should Tier 2 be held constant and the threshold be adjusted? If so, how often?
- Should there only be a redesign when there is a marked change in marginal cost of new supply? Why or why not?

AMCS/RDOS states the following on page 24 of its evidence:

> Price discrimination occurs when different customers are charged different prices for the same good or service. In economic terms, the RCR constitutes price discrimination if it is charging some customers higher rates than others, where there is no cost justification for the differential.

On page 26 of its evidence, AMCS/RDOS states: "high use customers are cross-subsidizing low-use customers."

AMCS/RDOS further states on page 27: "This cost to serve differential should be added to the revenue differential to obtain a full estimate of the amount of the overcharges and cross-subsidization."

1.16 Please clarify if AMCS/RDOS is recommending that FBC should design separate residential rate schedules which recognize customers' end uses of energy.

1.17 Has AMCS/RDOS considered the utility's cost of redesigning and maintaining such rate structures? If yes, please analyze the costs and benefits of this approach and whether the benefits outweigh the costs. If no, please explain why not.

On page 63 of the Application, FBC states the following:

> Postage stamp rates in general will result in some intra-class subsidies. This does not mean that separate rate classes, or subdivisions within a particular rate class, should be pursued. FBC supports the postage stamp rate concept where all customers with substantially similar characteristics are billed on the same rate.

1.18 Please discuss whether AMCS/RDOS agrees that postage stamp rates will, in general, result in some intra-class subsidies.

1.18.1 If yes, please explain whether AMCS/RDOS considers a certain degree of intra-class subsidy to be acceptable.

1.18.2 If AMCS/RDOS does not agree, please explain why not.

1.19 Please provide AMCS/RDOS' view on the appropriateness of postage stamp rates, and in particular, the appropriateness of postage stamp rates for FBC's residential customer class.

2.0 **Reference:** **RESIDENTIAL CONSERVATION RATE**
Exhibit C3-7, Tables 4.1, 4.3, 4.4, pp. 19, 26, 27
Performance of RCR

AMCS/RDOS states on page 19 of its evidence: "As shown in Table 4.1, 20% of customers have, on average, more than 36% of their consumption in Tier 2."

2.1 Please provide the supporting references from the evidence in the proceeding to support the statement that "20% of customers have, on average, more than 36% of their consumption in Tier 2."

2.1.1 As part of the above response, please provide the supporting references for the data/information contained in the "Percent of Customers" column and the "Percent of Use in Tier 2" column in Table 4.1.

AMCS/RDOS states the following on page 26 of its evidence:

> Table 4.3 shows, for each electricity consumption category, how much the average customer is currently paying over and below the Flat Rate. This year customers with consumption higher than 15,000 kWh per year are being overcharged by at least $6.6 million. Customers whose consumption is in the 30,000 kWh – 35,000 kWh range are being overcharged, on average, almost $700 per year.

2.2 Please provide all supporting references and calculations to show how the amounts contained in the "Average Per Customer Payment Above Flat Rate" and "Total Payments Above Flat Rate" columns were determined.

AMCS/RDOS states the following on page 27 of its evidence:

> Table 4.4 shows that if the RCR is phased out over the next four years, rather than being terminated on January 1, 2019, high use electricity customers will be overcharged, and forced to cross-subsidize low electricity customers, by at least a further $14 million.

2.3 Please provide the applicable reference(s) from the evidence in the proceeding to support the "Number of Customers" column in Tables 4.3 and 4.4.

2.4 Please provide all supporting references and calculations to show how the amounts contained in the "Cumulative Average Per Customer Payment Above Flat Rate" and "Cumulative Total Payments Above Flat Rate" columns were determined.

3.0 **Reference:** **RESIDENTIAL CONSERVATION RATE**
Exhibit C3-7, Table 6.5, p. 45
Proposed phase-in of flat rate

AMCS/RDOS provides the following table (Table 6.5) on page 45 of its evidence:

Table 6.5 Winter Rate Shock: Customer Consuming 7,500 kWh (two month billing)

FBC Phase-In	Winter Rate $/kWh	Tier 1 Rate $/kWh	Winter Rate Shock
Current RCR	0.144	0.101	+43%
Year 1	0.140	0.104	+35%
Year 2	0.136	0.108	+25%
Year 3	0.131	0.112	+17%
Year 4	0.126	0.116	+8.5%

3.1 Please provide all supporting references and calculations for the rates shown in the "Winter Rate" column of Table 6.5. Please explain all assumptions used in the calculation of these rates.

3.2 Please provide all supporting references and calculations for the rates shown in the "Tier 1 Rate" column of Table 6.5. Please explain all assumptions used in the calculation of these rates.

3.3 Please provide the supporting calculations for the "Winter Rate Shock" column of Table 6.5.

4.0 **Reference: OPTIONAL TIME OF USE RATES**
Exhibit C3-7, p. 32; Exhibit B-21, BCUC IR 137.5.1
Potential Revenue Deficiency

On page 32 of Exhibit C3-7 AMCS/RDOS states:

> Like the RCR, mandatory TOU Rates could end up promoting inefficient customer behaviour, encouraging the greater use of fossil fuels and imposing discriminatory rates on customers using electricity for space and water heating. To prevent this from happening, it is essential that the TOU rate system be optional with customers having the right to stay with a default Flat Rate…
>
> If the rate differential exceeded the amount of the resulting savings, then this would constitute a cross-subsidy from customers paying the default rate to those paying TOU rates. The TOU system will need to be closely monitored to ensure that such cross-subsidization of customers does not occur.

In its response to BCUC IR 137.5.1 FBC provides a table with the estimated revenue deficiency, by rate class, that could result if customers that would see a bill decrease under the proposed optional Time-of-Use (TOU) rates opt in to the program and do not change their consumption. For the residential class, the estimated revenue deficiency is between $9,379,657 as compared to the current residential rate and $729,433 as compared to the proposed Year 5 flat rate.

4.1 Please discuss AMCS/RDOS's views on how the potential revenue deficiency that could result from the optional nature of FBC's TOU rates proposal should be treated.