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August 20, 2018

B.C. Sustainable Energy Association  
c/o William J. Andrews, Barrister & Solicitor  
1958 Parkside Lane  
North Vancouver, B.C.  
V7G 1X5

Attention: Mr. William J. Andrews

Dear Mr. Andrews:

**Re: FortisBC Inc. (FBC)**  
**Project No. 1598939**  
**2017 Cost of Service Analysis and Rate Design Application (the Application)**  
**FBC Information Request (IR) No. 1 to the B.C. Sustainable Energy Association**  
**and Sierra Club of British Columbia (BCSEA)**

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On December 22, 2017, FBC filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-101-18 establishing the Regulatory Timetable for the review of the Application, attached please find FBC IR No. 1 to BCSEA on the Evidence of Phillip Raphals, Helios Centre (Exhibit C2-6).

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

Sincerely,

**FORTISBC INC.**

***Original signed:***

Diane Roy

Attachments

cc (email only): Commission Secretary  
Registered Parties

FortisBC Inc. (FBC) 2017 Cost of Service Analysis and Rate Design Application (the Application)	Submission Date: August 20, 2018
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1    **1.0    Reference:   Evidence of Philip Raphals, Page 21**

2            “FBC is seeking to increase the residential customer charge from \$16.05 to \$18.70 per  
3            month (phased in over 5 years).”

4            1.1    In the opinion of Mr. Raphals, is there a cost-based reason for the Customer  
5            Charge that exists as part of the residential conservation rate to differ from the  
6            Customer Charge that forms part of the existing flat residential rate RS 03?

7

8    **2.0    Reference:   Evidence of Philip Raphals, Page 9**

9            *footnote #22.* Hydro-Québec Distribution, Présentation de la Méthodologie de Calcul  
10           des Coûts évités, Régie de l’énergie, file R-3610-2006, HQD-15, doc. 2, Annexe A, URL  
11           [http://www.regie-energie.qc.ca/audiences/3610-](http://www.regie-energie.qc.ca/audiences/3610-06/Requete3610/hqd_15_02_annexe_a_PGEE.pdf)  
12           06/Requete3610/hqd\_15\_02\_annexe\_a\_PGEE.pdf

13           2.1    Please submit a full French to English translation of the PowerPoint cited on  
14           Page 9, footnote 22.

15

16   **3.0    Reference:   Evidence of Philip Raphals, Page 10**

17           “FBC points out that the Deferred Capital Expenditure (DCE) is a high-level system-wide  
18           estimate for the marginal costs of transmission and distribution, and does not separate  
19           out a DCE value for the residential or any other customer class. One plausible approach  
20           for allocating DCE among customer classes would be in relation to their contribution to  
21           the coincident peak (CP)” [underline added]

22           3.1    Please confirm the proposed approach in Mr. Raphals submission for allocating  
23           the high-level system-wide Deferred Capital Expenditure (DCE) estimate among  
24           customer classes in relation to their contribution to the coincident peak is the  
25           original work of Mr. Raphals.

26           3.1.1   If not confirmed, please provide a reference (in English) for allocating a  
27           high-level system-wide DCE estimate among customer classes in relation  
28           to their contribution to the coincident peak.

29

30   **4.0    Reference:   Evidence of Philip Raphals, Page 11**

31           “The full avoided cost is therefore: \$119.77/MWh \* (1 + 8.3%) = \$129.71/MWh”

1           4.1     Please confirm \$119.77 per MWh represents the avoided cost per MWh at the  
2                   meter and \$129.71 per MWh represents the avoided cost per MWh at the point  
3                   of interconnection to FBC’s system in the equation “**\$119.77/MWh \* (1 + 8.3%)**  
4                   **= \$129.71/MWh**”

5           4.2     If confirmed, does Mr. Raphals agree that the calculation should be \$119.77 per  
6                   MWh / (1 - 8.3%) = \$130.61 per MWh rather than \$119.77 per MWh \* (1 + 8.3%)  
7                   = \$129.71 per MWh, given 1MWh at the point of interconnection results in 1MWh  
8                   less 8.3% losses being delivered to the customer meter?”

9                   4.2.1   If not, why not?

10

11   **5.0     Reference:   Evidence of Philip Raphals, Page 12-13**

12                   “In Table 8-1 of the LTERP, FBC identifies the UEC of this High DSM resource option at  
13                   \$114 (\$2015)/MWh, substantially higher than the \$96 associated with the full A4  
14                   portfolio”

15   **Reference:   FBC. 2016 LTERP and LT DSM Plan**

16                   Table 8-1: FBC Demand-Side and Supply Side Resource Options. FBC Errata filed as  
17                   Ex B-1-1. September 15, 2017.

**Table 8-1: FBC Demand-Side and Supply-Side Resource Options**

Resource Option	UEC (\$/MWh)	UCC (\$kW-year)
Base DSM	\$86	N/A
High DSM	\$98	N/A
Max DSM	\$108	N/A
PPA Tranche 1 Energy	\$47 - \$56	N/A
PPA Tranche 2 Energy	\$85 - \$130	N/A
PPA Capacity	N/A	\$96 - \$115
Market Purchases	\$34 - \$64	\$169 - \$355
Wood-Based Biomass	\$118 - \$188	\$663 - \$774
Biogas	\$77 - \$101	\$621 - \$838
Municipal Solid Waste	\$134	\$1,031
Geothermal	\$132 - \$217	\$857 - \$1,506
Gas-Fired Generation (CCGT)	\$82 - \$100	\$147 - \$279
Similkameen Hydro Project	\$202	\$1,298
Gas-Fired Generation (SCGT)	N/A	\$80 - \$143
Pumped Hydro Storage	N/A	\$217
Onshore Wind	\$111 - \$145	\$1,219 - \$1,618
Run-of-River Hydro	\$87 - \$150	\$1,230 - \$1,924
Solar	\$169 - \$184	\$1,399 - \$1,413

18

19           5.1     Please confirm if the UEC of \$114 per MWh associated with the High DSM  
20                   resource option shown in Mr. Raphals submission was intended to be \$98 per  
21                   MWh.



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- 5.1.1 If confirmed, please redo the calculation on page 13 of Mr. Raphals submission using a UEC of \$98 per MWh for the High DSM resource option.
- 5.1.2 If not confirmed, please provide a citation for the UEC of \$114 per MWh associated with the High DSM resource option.