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March 28, 2018

British Columbia Utilities Commission
Sixth Floor, 900 Howe Street, Box 250
Vancouver, BC, V6Z 2N3
Attn: Patrick Wruck, Commission Secretary

By Web Posting

Dear Sir:

Re: FortisBC Inc. 2018 Demand-Side Management Expenditures Application
BCUC Project No.1598934
B.C. Sustainable Energy Association and Sierra Club BC submission

This is the final argument of the interveners BCSEA and SCBC, pursuant to the regulatory timetable set out in G-53-08.[1]

1. Acceptance of 2018 DSM expenditure schedule

BCSEA-SCBC support Commission acceptance of FBC's 2018 DSM expenditure schedule pursuant to section 44.2 of the *Utilities Commission Act*. The expenditure schedule anticipates DSM expenditures of $7.9 million for 2018. This coincides with the pro forma DSM spending of $7.9 million for 2018 in the "High" DSM scenario in FBC's 2016 Long-Term DSM Plan that is currently before the Commission in a separate proceeding. In that proceeding, BCSEA-SCBC supported Commission acceptance of the High DSM scenario, noting that under the proposed long-term electricity resources plan and the LT DSM Plan no new supply-side resources are contemplated for at least ten years and certainly not before 2021 when FBC's next long term resource plan is anticipated.[2] BCSEA-SCBC consider that FBC's 2018 DSM expenditure schedule is in the public interest considering the factors listed in s.44.2 of the UCA.

2. Another 'bridge' year

For a number of different reasons, FBC has had a series of one-year or two-year DSM expenditure schedules based largely on extensions of previous years.

The 2015-2016 DSM expenditure schedule ($7.3 million for 2015 and $7.5 for 2016) was a return to approximately the same programs and expenditures that were approved in the 2012-2013 DSM Plan. It was accepted, although the Commission Panel expressed concerns about the adequacy of expenditures.[3]

[1] Appendix A-6.
[2] BCSEA-SCBC Final Submission, November 10, 2017, http://www.bcuc.com/Documents/Arguments/2017/DOC_50305_11-10-2017_BCSEA-Final-Argument.pdf.
[3] Decision and Order G-186-14.

The 2017 DSM expenditure schedule (for $7.6 million) was described by FBC as a bridging year pending completion of the CPR and the review of the 2016 LT DSM Plan. The Commission Panel did accept the 2017 schedule. However, it rejected the "bridging" concept, stating:

> "We agree that the more comprehensive reworking of the DSM initiative is best accomplished in the context of the LTRP as suggested. But that does not preclude FBC from taking advantage of the opportunities already identified. We believe that prior decisions from the Commission and arguments put forward in this proceeding identify a number of opportunities that could be profitably pursued in the immediate term, without the need to wait for the broader analysis."[4]

The Panel continued:

> "The Panel is further concerned that the extension of existing programming sits on a foundation of recent activity which in itself can be characterized as having fallen short. In other words, "more of the same" is inherently plagued by underperformance."[5]

In turn, the 2018 DSM expenditure schedule (for $7.9 million) is largely a continuation of the 2017 schedule.

FBC's 2016 Long-Term DSM Plan calls for a ramp-up in DSM spending and savings in 2021. BCSEA-SCBC understand that after the Commission issues its decision on the 2016 LTERP and 2016 LT DSM Plan FBC intends to file a multi-year DSM expenditure schedule for 2019 and subsequent years, presumably including at least 2021.

In BCSEA-SCBC's view, FBC's multi-year DSM expenditure schedule for 2019 and onward should be a significant opportunity for FBC to incorporate new and strengthened programs. The company will have the guidance of the Commission's (anticipated) decision on the 2016 LT DSM Plan. In addition, FBC will be able to base programs on the "Additional Scope Services" results of the multi-utility Conservation Potential Review. For FBC, these include market potential, fuel switching and demand response.

3. 2017 DSM Results

In each year from 2011 to 2016 FBC's actual DSM spending was less than its planned (and approved) DSM spending, in some cases substantially, with the exception of 2014 when DSM spending was less than half that of the year before and the year after.[6]

In 2017, however, FBC's DSM spending was close to its planned (and approved) DSM spending. The preliminary actual spend for 2017 is $7.3 million, 96% of the $7.6 million planned.[7] In BCSEA-SCBC's view this a notable step in the right direction.

FBC's preliminary actual DSM savings for 2017 are 27,663 MWh, which is above the planned 2017 DSM savings of 25,715 MWh. This is largely due to higher than planned spending and savings in the Commercial programs area.[8]

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[4] Decision and Order G-9-17, Appendix A, p.10.
[5] *Ibid.*
[6] Decision and Order G-9-17, Appendix A, Table 4, p.7; Exhibit B-3, BCUC IR 15.1.
[7] Exhibit B-4, BCOAPO IR 1.1.

4. Residential, Air Source Heat Pumps

BCSEA-SCBC agree with FBC that:

> "With its temperate winters and hot summers, the FBC service area is an ideal climate for air source heat pumps (ASHP). Further, the 2012 Residential End Use Survey (REUS) data shows that 38 percent of FBC customers have electric heat, indicating a large potential market for the program."[9]

FBC proposes to continue its residential ASHP incentive program in 2018, albeit at a lower level of planned spending and system savings ($167,000 and 395 MWh, respectively) than was approved for 2017 ($253,000 and 781 MWh).[10]

FBC explains the reduced 2018 budget and savings for the ASHP program as follows:

> "In response to declining participation, the 2018 budget was reduced to ensure participation numbers could be met in the interim while tools to increase the number of customers participating in the program are developed. In 2018, a communications campaign targeting customers with electricity as their primary heating source will leverage perceived strengths of heat pump technology. This is intended to set the stage for increased participation in subsequent years."[11]

Asked by BCSEA-SCBC whether it has identified additional steps it could take in 2018 to increase participation, based on the information it uncovered in the summer 2017 insight report, FBC states:

> "Primary findings in the insight report determined that pro-active education is required to grow awareness and familiarity with heat pump technology, overcome skepticism that heat pumps will result in savings on energy bills, and provide assurance that heat pumps are easy to install, operate and maintain. Awareness is the first step for a successful rebate campaign and FBC intends to focus on this area for 2018.
>
> Additional findings in the report indicated that current incentives are not boosting overall interest. Customers indicated that a higher rebate would be required to convince them to consider adopting the technology. Rebate levels will be considered in parallel with the development of the communications campaign."[12]

FBC adds:

> "FBC will focus on program redesign and development of a communications campaign in 2018. The time and planning required for these campaigns does not make accelerated deployment of the program redesign and communications

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[8] *Ibid.*
[9] Exhibit B-2, FBC response to BCUC IR 1.1, Appendix A, 2018 Demand-Side Management (DSM) Plan, Section A2.2 Heat Pumps, p. A6; pdf p. 34.
[10] Exhibit B-2, Appendix A2, page A5, Table A2-1.
[11] *Ibid.*
[12] Exhibit B-5, FBC response to BCSEA IR 1.1.

> campaign possible. While there may be an uptick in participation towards the end of the year, the largest increase is anticipated to follow in subsequent years."[13]

In response to CEC, FBC states:

> "A communications campaign budget of $20,000 has been allocated for heat pump technology in 2018. The 2018 campaign will be designed to build awareness among customers with electrically heated homes and FBC expects that awareness to translate into increased participation in the heat pump program in 2019. Participation forecasts and energy savings will be represented in the 2019 Multi-Year DSM Expenditure Schedule planned to be filed in 2018."[14]

BCSEA-SCBC strongly encourage FBC to move quickly to accelerate participation in the ASHP program, especially to serve the 38% percent of FBC customers who have electric heat.

5. Residential, Low Income

FBC proposes to continue its residential Low Income program in 2018 at a lower level of planned spending and system savings ($731,000 and 1,229 MWh, respectively) than was approved for 2017 ($1,265 and 3,247 MWh).[15]

FBC explains the reduced planned spending as follows:

> "When first launched, the ECAP initially had strong participation from some early adopters. Now that the program has matured, FBC is finding that more outreach is required in order to engage customers that can benefit from this program. While outreach has been and will continue to be strengthened throughout FBC's service region, the budget allocated to ECAP in 2018 is reflective of the lower participation rates seen in 2017."[16]

BCSEA-SCBC see this as an unjustified scaling back of the Low Income program. FBC says the lower 2018 budget reflects a "plateau in customer participation.[17] However, BCSEA-SCBC are not convinced that FBC has established that higher savings levels couldn't be achieved cost-effectively with higher spending levels for this program. From BCSEA-SCBC's perspective, the role of a DSM program is to <u>create</u> demand for the measures in question, given that the absence of demand for the measures is the market failure the DSM program is designed to correct. BCSEA-SCBC expect to see higher spending and savings in the Low Income program in the upcoming multi-year expenditure schedule unless FBC provides convincing evidence that such savings would not be achievable.

FBC says the steps it intends to take in 2018 to maximize participation in ECAP include:

- "Seasonal bill inserts;

[13] Exhibit B-5, FBC response to BCSEA IR 1.2.
[14] Exhibit B-7, FBC response to CEC IR 6.2.
[15] Exhibit B-2, Appendix A2, page A5, Table A2-1.
[16] Exhibit B-2, FBC response to BCUC IR 1.1, p.A8.
[17] FBC Final Argument, para.55.

- Direct promotion via community social service organizations such as food banks, Salvation Armies, Community Resource Centres, etc.);
- Promotion through MLA and MP offices and support for any governmental initiatives;
- Information sessions;
- Provision of Energy Specialist roles via organizational partners (e.g., BC Housing and BC Non-Profit Housing Association);
- Targeted social media campaigns;
- Improving collateral and marketing to better meet target audiences' needs (e.g., video, First Nations specific collateral);
- Dedicated outreach to social housing providers and First Nations communities; and
- Promotion and participation at social housing events such as Housing Central."[18]

BCSEA-SCBC consider these to be appropriate steps to increase participation in the Low Income program.

FBC says the 2018 budget aims at serving approximately 7% of the eligible customer pool of approximately 27,000 households meeting the income eligibility criteria of 30 percent above Statistics Canada Low Income Cut-Off (LICO). This is based on approximately 900 households participating in the ECAP and 1,000 participating in the Energy Savings Kits program annually.[19]

FBC says that "If the outreach and program enhancements cause participation to exceed projections, FBC will determine whether funds can be reallocated from other program areas within the Conservation and Energy Management portfolio."[20]

BCSEA-SCBC strongly encourage FBC to push 2018 participation in the residential Low Income program above the relatively modest proposed savings and spending targets.

6. Residential, Customer Engagement Tools

FBC's Customer Engagement Tools program includes two categories: in-home displays, and a customer engagement portal and home energy reports. For this program, FBC plans 2018 spending and savings of $165,000 and 240 MWh, respectively.

The planned 2018 savings of 240 MWh are substantially lower than the planned 2017 savings of 3,097 MWh. FBC explains that this is because the customer engagement portal and home energy

[18] Exhibit B-5, FBC response to BCSEA IR 2.2.
[19] Exhibit B-5, FBC response to BCSEA IR 2.4.
[20] Exhibit B-5, FBC response to BCSEA IR 2.3.

reports implementation was delayed from 2017, "resulting in some expenditures being shifted to 2018, and all savings shifting to 2019."[21]

BCSEA-SCBC are disappointed with the one year delay in achieving the expected savings from this program. They look forward to full implementation of these important conservation and efficiency tools as soon as possible.

7. Low-carbon Fuel Switching

BCSEA-SCBC respectfully disagree with FBC's legal argument[22] that the BC energy objective (CEA s.2(h)) to encourage the switching from one kind of energy source or use to another that decreases GHG emissions in BC is not applicable to the Commission's consideration of a DSM expenditure schedule under s.44.2 of the UCA because of the amendment of the Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) on March 22, 2017.

BCSEA-SCBC submit that the GHG-reduction fuel switching energy objective remains applicable to the Commission's consideration of DSM expenditure schedules. The March 2017 amendment of the GGRR provides a new mechanism for a public utility to recover the costs of GHG-reducing fuel switching programs and measures.

The new GGRR mechanism includes GHG-reduction programs and measures that are not demand-side measures because they do not reduce net energy use as well as GHG-reduction DSM programs and measures that are not cost-effective under DSM cost-effectiveness methodology. However, the GGRR amendment does not purport to, and does not, change the definition of demand-side measure in the UCA and CEA. A program or measure that meets the statutory definition of DSM remains a demand-side measure even if it also decreases GHG emissions in BC through switching from one kind of energy source to another. The BC energy objective to encourage carbon-reducing fuel switching remains an applicable energy objective that the Commission must consider in determining whether a DSM expenditure schedule is in the public interest.

In practical terms, BCSEA-SCBC are less concerned with whether FBC uses DSM or GGRR as the basis for cost recovery and much more concerned that FBC move forward with GHG-reducing fuel switching programs and measures.

8. Cost-effectiveness

FBC's 2018 DSM portfolio has a Total Resource Cost ratio of 1.6 using the cost-effectiveness methodology prescribed by the DSM Regulation.[23] BCSEA-SCBC agree with FBC that the 2018 DSM expenditure schedule is cost-effective within the meaning of s.44.2(5)(d) of the *UCA*.

9. Adequacy

In considering whether to approve a long term DSM plan, section 44.1(8)(c) of the UCA requires the Commission to take into account, among other things, whether the utility intends to pursue "adequate" demand-side measures. The adequacy requirements are set out in section 3 of the DSM Regulation.

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[21] Exhibit B-3, FBC response to BCUC IR 2.8.3.
[22] FBC Final Argument, paras.27-28.
[23] Exhibit B-2, BCUC 1.1, p.13, pdf p.19.

BCSEA-SCBC agree with FBC in paragraph 35 of its Final Argument that "In practice, the "intention" reflected in a long term resource plan is carried into effect through the inclusion of measures in annual DSM expenditure schedules that satisfy the requirements of section 3 of the *DSM Regulation*."

The 2018 DSM expenditure schedule does include measures to address low-income households, rental accommodations, educational programs for students in schools and post-secondary institutions, and the two new requirements to support energy conservation and efficiency standards and to support step codes by municipalities or First Nations.

BCSEA-SCBC are satisfied that FBC's 2018 DSM expenditure schedule meets the adequacy requirements.

10. Conclusion

BCSEA-SCBC support Commission acceptance of FBC's 2018 DSM expenditure schedule. In their view, it is important that FBC file a multi-year DSM expenditure schedule as soon as possible following receipt of the Commission's decision regarding the 2016 Long-Term DSM Plan. BCSEA-SCBC look to this multi-year DSM expenditure schedule as a crucial opportunity for FBC to incorporate new and strengthened programs. FBC should move forward with GHG-reducing fuel switching programs and measures under the GGRR if not within the DSM portfolio.

For 2018, BCSEA-SCBC particularly encourage FBC to accelerate participation in the Air Source Heat Pump program and the Low Income program. And they look forward to early implementation of the Customer Engagement Tools program.

Yours truly,

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