



bcuc
British Columbia
Utilities Commission

Patrick Wruck
Commission Secretary

Commission.Secretary@bcuc.com
bcuc.com

Suite 410, 900 Howe Street
Vancouver, BC Canada V6Z 2N3
P: 604.660.4700
TF: 1.800.663.1385
F: 604.660.1102

June 8, 2017

Sent via eFile

**FORTISBC INC. LONG TERM ELECTRIC RESOURCE PLAN
& LONG TERM DEMAND SIDE MANAGEMENT PLAN EXHIBIT A-8**

Mr. William J. Andrews
Barrister & Solicitor
c/o BC Sustainable Energy Association and Sierra Club of BC
1958 Parkside Lane
North Vancouver, BC V7G 1X5
wjandrews@shaw.ca

Re: FortisBC Inc. – 2016 Long Term Electric Resource Plan & Long Term Demand Side Management Plan

Dear Mr. Andrews:

Further to the May 25, 2017 filing of intervener evidence, enclosed please find Commission Information Request No. 1 on Intervener Evidence. Please file your response electronically with the Commission on or before Thursday, June 29, 2017.

Original signed by Katie Berezan for:

Patrick Wruck
Commission Secretary

LU/dg
Enclosure



FortisBC Inc.

2016 Long Term Electric Resource Plan & Long Term Demand Side Management Plan

INFORMATION REQUEST NO. 1 TO BC SUSTAINABLE ENERGY ASSOCIATION AND SIERRA CLUB OF BC

- 1.0 **Reference:** **DEMAND SIDE MANAGEMENT**
Exhibit B-1, Resource Options, p. 95, 2016 Long-Term DSM Plan, p. 1; Exhibit C5-5, p. 4; Decision on FortisBC Inc.'s (FBC) Application for Acceptance of Demand Side Management (DSM) Expenditures for 2015 and 2016, dated December 3, 2014, p. 11; Reasons for Decision on FBC's Application for Acceptance of DSM Expenditures for 2017 DSM Expenditures, January 25, 2017, pp. 4, 10; Exhibit B-11, BCUC IR 64.1, 79.3; Clean Energy Act, s.2(b)(c) Setting the DSM funding envelope

Mr. Grevatt states on page 4 of Exhibit C5-5:

Fortis does not provide evidence to substantiate its claim that high DSM savings targets are too risky. Actually, many jurisdictions in North America routinely achieve high savings goals through DSM programs, and are often required by regulators to do so. These savings goals are often considerably larger than those contemplated by Fortis. ... For example, according to the 2016 ACEEE State Scorecard, three U.S. states achieved net savings greater than 2.0% of sales in 2015, and an additional thirteen states achieved savings between 1.0% and 2.0% of sales. In all, nineteen states achieved greater than the 0.8% savings that Fortis contemplates in its Max scenario, and many of these states have been achieving high levels of savings year after year. ...

FBC states on page 95 of its 2016 Long-Term Electricity Resource Plan (LTERP): "Demand-side resource options are typically more cost-effective than new supply-side resource options... Accordingly, FBC looks to demand-side resources first to meet any future [load resource balance (LRB)] gaps." FBC further states in response to BCUC Information Request (IR) 79.3: "The FBC [conservation potential review (CPR)] results show ample, cost effective DSM is available to achieve the funding envelopes proposed in the 2016 [long-term] DSM Plan."

The *Clean Energy Act* (CEA) includes as a BC energy objective: (c) to generate at least 93% of the electricity in British Columbia from clean or renewable sources. FBC states on page 1 of the 2016 Long-Term DSM Plan: "The proposed DSM target is to offset 77 percent of load growth over this 20 year period." FBC states in response to BCUC IR 64.1 that it plans to purchase 89.9% of energy in 2017 and 92% of energy in 2018 from sources that meet the CEA definition of electricity self-sufficiency.

The CEA includes as a BC energy objective: (b) to take demand-side measures and to conserve energy, including the objective of the authority reducing its expected increase in demand for electricity by the year 2020 by at least 66%. [emphasis added]

The Commission stated on page 11 of the December 3, 2014 Decision on FBC's Application for Acceptance of Demand Side Management Expenditures for 2015 and 2016 (G-186-14):

"The Commission Panel considers that FBC's DSM proposal is consistent with the 50 percent reduction in

load growth target. However, the Panel considers that this load reduction target should act as a floor rather than a cap on the level of cost-effective DSM funding.”

In the Reasons for Decision on FBC’s Application for Acceptance of DSM Expenditures for 2017 DSM expenditures (G-9-17), the Commission stated on pages 4, 10:

Despite the acceptance of the proposed expenditure schedule, the Panel is concerned that it falls short of addressing a range of DSM possibilities that could be pursued in the coming year. ...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.

- 1.1 Please describe alternative approaches used in other jurisdictions to set the overall size of the DSM funding envelope.
 - 1.1.1 Please describe the advantages/disadvantages of using the following approaches to set the size of the DSM funding envelope for FBC: (i) offsetting a percentage of load growth; (ii) achieving net savings greater than a minimum percentage of sales; and (iii) undertaking a ‘bottom up’ analysis to identify all cost effective DSM.
- 1.2 Does BC Sustainable Energy Association and Sierra Club BC (BCSEA) consider that FBC could reasonably be expected to achieve cost effective net energy savings that equal (i) 1.0% of sales; (ii) 1.5% of sales; and (iii) 2.0% of sales? Please explain.

- 2.0 **Reference: DEMAND SIDE MANAGEMENT
Exhibit C5-5, p. 4; ACEEE 2016 State Energy Efficiency Scorecard, September 26, 2016, p. 28;¹ Exhibit B-2, BCUC IR 45.6
Calculation of net energy savings**

Mr. Grevatt states on page 4 of Exhibit C5-5: “... three U.S. states achieved net savings greater than 2.0% of sales in 2015, and an additional thirteen states achieved savings between 1.0% and 2.0% of sales.”

The 2016 ACEEE State Scorecard referenced in Mr. Grevatt’s evidence states on page 28: “At least a portion of savings reported as gross. We adjusted the gross portion by a net-to-gross factor of 0.817 to make it comparable with net savings figures reported by other states.” FBC states in response to BCUC IR 45.6 that key assumptions include free-rider/spillover rates of zero percent.

- 2.1 Please explain the difference between ‘gross’ and ‘net’ energy savings, and whether FBC’s assumption of zero free-rider/spillover rates is generally consistent with industry practice.
- 2.2 Does BCSEA consider that it would be appropriate to adjust the FBC estimated energy savings by a net-to-gross factor of 0.817 in order to estimate net energy savings? Please explain.

- 3.0 **Reference: DEMAND SIDE MANAGEMENT
Exhibit C5-5, p. 11; Exhibit B-13, BCSEA IR 23.4; Exhibit B-11, BCUC IR 81.1.2
DSM cost effectiveness tests**

Mr. Grevatt states on page 11 of Exhibit C5-5 that FBC should use marginal, rather than average, line losses in screening the cost-effectiveness of DSM initiatives.

¹ <http://aceee.org/research-report/u1606>

FBC states in response to BCSEA IR 23.4: “Therefore, while it is correct that in general DSM reduces the requirement for energy and capacity at the margin, it is incorrect to assume that all DSM savings benefit the system at the peak marginal loss rate.”

FBC states in response to BCUC 81.1.2:

Evaluating the utility cost (only) of alternative DSM portfolios, targeting those measures against the utility cost of supply side alternatives, would inherently place DSM at an advantage since that approach would ignore the customers’ portion of costs that are also borne by DSM participants.

3.1 Is the use of marginal, rather than average, line losses in screening the cost-effectiveness of DSM initiatives consistent with industry practice in other jurisdictions? Please explain.

3.1.1 Please explain how marginal losses would be estimated, given that DSM energy savings also occur during off-peak time periods.

3.2 In undertaking a cost-effectiveness analysis, please explain whether comparing (i) the utility cost of DSM programs that pass the Total Resource Cost TRC against (ii) the utility cost of supply side options (such as market purchases) places DSM at an unfair advantage compared to supply side options.

4.0 **Reference: DEMAND SIDE MANAGEMENT
Exhibit C5-5, p. 10; Exhibit B-11, BCUC IR 83.1.1
Fuel switching**

Mr Grevatt states on page 10 of Exhibit C5-5 that it found FBC’s space heating fuel switching analysis to be insufficient, and believes that it is premature to conclude that low-carbon electrification is not cost effective on this basis.

FBC states in response to BCUC IR 83.1.1:

FBC considers that calculating the modified TRC (mTRC) using [zero emission energy alternative (ZEEA)] is moot, since the [*Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR)*] has prescribed a new benefit/cost calculation for Electrification (fuel-switching) purposes. Section 4(1) of [Order in Council (OIC)] 101/2017 (now s. 4(1) of the GGRR) provided as follows:

Prescribed undertaking - electrification

4 (1) In this section:

"benefit", in relation to an undertaking in a class defined in subsection (3) (a) or (b), means all revenues the public utility reasonably expects to earn as a result of implementing the undertaking, less revenues that would have been earned from the supply of undertaking electricity to export markets;

"cost", in relation to an undertaking in a class defined in subsection (3) (a) or (b), means costs the public utility reasonably expects to incur to implement the undertaking, including, without limitation, development and administration costs;

"cost-effective" means that the present value of the benefits of all of the public utility's undertakings within the classes defined in subsection 3 (a) or (b) exceeds the present value of the costs of all of those undertakings when both are calculated using a discount rate equal to the public utility's weighted average cost of capital over a period that ends no later than a specified year;

- 4.1 Does BCSEA consider that OIC 101/2017 supports an assumption that electrification initiatives (such as natural gas to electricity for heat and hot water, electric vehicles) do provide a BC benefit (i.e. they pass the total resource cost test)? Please explain.
- 4.2 Does BCSEA consider that OIC 101/2017 indicates that the key cost effectiveness test for electrification initiatives is whether such programs are cost effective from the utility perspective (i.e. whether they pass the utility cost test)? Please explain.