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November 13, 2018

BY ELECTRONIC FILING

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Attention: Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Sirs/Mesdames:

**Re: FortisBC Energy Inc. 2019-2022 Demand Side
Management Expenditures Plan – BCUC Project No.
1598964**

Please find enclosed for filing the Final Argument of FortisBC Inc., dated November 13, 2018, with respect to the above-noted matter.

Yours truly,

FARRIS, VAUGHAN, WILLS & MURPHY LLP

Per:



Nicholas T. Hooge

NTH/cn
Enclosure

c.c.: client
All Registered Interveners

BRITISH COLUMBIA UTILITIES COMMISSION

IN THE MATTER OF
the *Utilities Commission Act*, R.S.B.C. 1996, chapter 473

and

FortisBC Inc. 2019-2022 Demand-Side Management Expenditures

FINAL ARGUMENT OF FORTISBC INC.
November 13, 2018

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PART 1 - OVERVIEW

1. On August 2, 2018, FortisBC Inc. (**FBC** or the **Company**) filed an application with the British Columbia Utilities Commission (**BCUC**) for acceptance of its schedules of Demand Side Management (**DSM**) expenditures for 2019 to 2022 (the **Application**).
2. In the Application, FBC seeks BCUC acceptance, pursuant to s. 44.2 of the *Utilities Commission Act*, R.S.B.C. 1996, c. 473 (the *UCA*), of its anticipated DSM expenditures totalling \$43.3 million (\$44 million, inflation adjusted) over the four year term of the 2019-2022 DSM Plan, which is attached as Appendix “A” to the Application (the **DSM Plan**). A detailed breakdown of the expenditures for which approval is sought, together with associated energy savings and Total Resource Cost (**TRC**) test results is found at Table 1-1 of the DSM Plan (as corrected pursuant to the Errata filed as Exhibit B-1-1 on October 30, 2018).
3. FBC provides this Final Argument pursuant to BCUC Order G-179-18, establishing the regulatory timetable for the Application. FBC submits that its 2019-2022 DSM Plan and the programs and expenditures outlined therein comply with the legal framework established under s. 44.2(5) of the *UCA* and the *Demand-Side Measures Regulation*, B.C. Reg. 326/2008, as amended (the *DSM Regulation*). The Application evidences that FBC will continue to provide cost-effective DSM programs to customers, with some additions and modifications to simplify offers, align programs with provincial partners, and comply with amendments to applicable legislation. Accordingly, the BCUC should accept the filing of the DSM Plan and the schedule of expenditures it contains.

PART 2 - BACKGROUND AND RELATED COMMISSION PROCESSES

A. Introduction

4. The 2019-2022 DSM Plan, in certain respects, builds upon FBC’s approved DSM plans and budgets in prior years, and reflects the levels of spending and savings targeted in the “High” DSM scenario selected for the Company’s 2016 Long Term Electric Resource Plan (**2016 LTERP**) and associated Long Term Demand-Side Management Plan (**LT**

DSM Plan). The BCUC accepted the LT DSM Plan as being in the public interest in Decision and Order G-117-18. The 2019-2022 DSM Plan and Application also reflect a change in circumstances since the LT DSM Plan was filed; in particular, FBC's response to emerging customer activities.

5. A review of the regulatory context in which the Application was filed is set out below.

B. 2016 LTERP and LT DSM Plan

6. The 2016 LTERP and LT DSM Plan were filed on November 30, 2016. The LT DSM Plan included FBC's assessment of the appropriate level of cost-effective DSM resource acquisition to meet its resource needs over the 2016 LTERP's 20-year planning horizon. The spending and savings targets under the "High" DSM scenario FBC selected for the LT DSM Plan largely reflected an extension of FBC's previously approved 2015-2016 DSM Plan and 2017 DSM Plan for the period from 2017 to 2020. The pro forma DSM budgets provided with the LT DSM Plan contemplated annual DSM expenditures of \$7.9 (2016\$) and annual savings of 26.4 GWh in each of 2019 and 2020.¹
7. Thereafter, beginning in 2021, the LT DSM Plan called for a ramp-up in DSM spending and savings. The pro forma budgeted spending in the LT DSM Plan was \$9.4 million in 2021 and \$10.6 million in 2022, with targeted savings of 32.4 GWh and 33.1 GWh, respectively.² The LT DSM Plan as a whole contemplated an average off-set of 77% of FBC's load growth from DSM over the course of the 20-year planning horizon.³ As will be discussed further below, the spending and savings levels in the filed 2019-2022 DSM Plan are higher than contemplated in the LT DSM Plan due a material change in circumstances (the emergent cannabis production facilities to be constructed in FBC's service territory) since the LT DSM Plan was prepared and accepted by the BCUC.
8. The 2016 LTERP and LT DSM Plan also included FBC's assessment of the LRMC of clean or renewable BC resources for the purposes of cost-effectiveness testing under the

¹ Ex. B-1 (Application), p. 1

² Ibid.

³ Ibid.

DSM Regulation. This LRMC value was calculated to be \$100.45/MWh (abbreviated to \$100/MWh).⁴

9. The BCUC determined that the LT DSM Plan is in the public interest and accepted it pursuant to Order G-117-18.

C. CPR Additional Scope Services and Market Potential

10. FBC prepared the 2016 LTERP and LT DSM Plan with the benefit of the provincial, dual-fuel conservation potential review (**BC CPR**) conducted by Navigant Consulting (**Navigant**). However, at the time of the 2016 LTERP and LT DSM Plan proceeding, FBC had only received the technical and economic potential results as part of its specific BC CPR report from Navigant (filed as Appendix A to the LT DSM Plan).⁵ Navigant had not yet completed a study of market potential in FBC's service territory, but subsequently did so in January 2018. These market potential results were filed as Appendix B to the current DSM Plan.

11. As described in IR responses in this proceeding, there are significant differences between technical and economic potential, on the one hand, and market potential, on the other. Technical and economic potential includes the potential for all energy savings measures as if they were implemented instantaneously.⁶ Technical potential is calculated regardless of cost, market acceptance, or whether a measure needs to be replaced; whereas, economic potential is a subset of technical potential that uses the same assumptions, but includes only measures that pass the TRC test.⁷ Market potential represents a high-level assessment of savings that could be achieved over time, factoring in various assumptions about customer acceptance, simulated incentive levels, equipment turn-over (as a function of measure life) and other factors that are not dependent on DSM program design.⁸ As a

⁴ Ex. B-1 (Application), p. 5

⁵ Ex. B-1 (Application), p. 16

⁶ Ex. B-4 (Response to CEC IR 1.8.1), p. 20

⁷ Ex. B-1 (Application), p. 15

⁸ Ex. B-1 (Application), p. 16; Ex. B-4 (Response to CEC IR 1.8.1), p. 20

result, market potential has lower levels of energy savings than technical or economic potential.⁹

12. The BCUC recognized the benefits of market potential results in its decision regarding FBC's 2018 DSM Plan, which was also filed prior to the completion of Navigant's market potential study. In that decision, the Panel commented that, "It is recognized that the timing of the completion of the market potential study prevented FBC from including the results in the formation of the 2018 DSM Plan. The Panel supports these additional scope items from the CPR as a means of strengthening the scope and effectiveness of FBC's DSM portfolio".¹⁰

13. Section 5.4.1 of the Application contains a detailed discussion of the market potential results and analysis FBC ultimately received from Navigant.

D. EMERGENT CUSTOMER ACTIVITIES

14. The 2019-2022 DSM Plan, in part, reflects FBC's response to emergent customer activities in its service territory. Specifically, and as discussed in detail in the Application and IR responses, with the recent legalization of recreational cannabis use, the Okanagan has seen an influx of new cannabis greenhouses and growing facilities. During development of the DSM Plan, FBC was aware of 14 cannabis production facilities proposed for its service territory.¹¹ FBC is now aware, as of October 15, 2018, that 17 planned cannabis production facilities are complete or currently under construction in FBC's service territory.¹²

15. Over half of the \$7.7 million increase in expenditures over the four years of the DSM Plan, compared to the pro-forma budgets for the same period in the LT DSM Plan, is allocated to lighting measures in the Industrial sector, largely to address agricultural process lighting in the emergent cannabis production industry.¹³ The 2019-2022 DSM

⁹ Ex. B-4 (Response to CEC IR 1.8.1), p. 21

¹⁰ Order and Decision G-113-18, Application for Acceptance of 2018 DSM Expenditures, p. 4

¹¹ Ex. B-4 (Response to CEC IR 1.3.7), p. 7

¹² Ex. B-1 (Response to BCUC IR 1.13.5), p. 72

¹³ Ex. B-1 (Application), p. 14

Plan forecast assumes that two additional cannabis production facilities will be proposed annually beyond 2020, and completed the following year.¹⁴

16. The changes to the current DSM Plan as compared to the contemplated spending and savings in the LT DSM Plan, which are primarily a result of these emergent customer activities, are discussed in further detail below.

PART 3 - LEGAL & REGULATORY FRAMEWORK

A. *UCA, section 44.2*

17. FBC's Application is filed pursuant to section 44.2 of the *UCA*, which provides that a utility may file "an expenditure schedule containing ... (a) a statement of the expenditures on demand-side measures the public utility has made or anticipates making during the period addressed by the utility". Under s. 44.2(2), a utility cannot recover DSM expenditures in its rates unless the expenditures are made pursuant to an expenditure schedule the BCUC has accepted for filing.

18. Section 44.2(3) of the *UCA* provides that the BCUC must accept an expenditure schedule if it considers that making the expenditures included in the schedule would be in the public interest, or reject the schedule if not. Section 44.2(4) allows the BCUC to accept or reject part of an expenditure schedule. The *UCA* does not give the BCUC authority to direct a utility to make a greater amount of expenditures than are set out in a filed DSM expenditure schedule.¹⁵ The BCUC's jurisdiction is limited to accepting or rejecting the expenditure schedule, in whole or in part.

19. In considering whether to accept a DSM expenditure schedule filed by a public utility (other than the "authority"; i.e., BC Hydro and Power Authority), the BCUC must consider the following criteria under section 44.2(5):

- (a) the applicable of the British Columbia's energy objectives;

¹⁴ Ex. B-4 (Response to CEC IR 1.3.12), p. 10

¹⁵ Ex. B-4 (Response to CEC IR 1.1.1), p. 2

- (b) the most recent long-term resource plan filed by the public utility under section 44.1, if any;
- (c) the extent to which the schedule is consistent with the applicable requirements under sections 6 and 19 of the *Clean Energy Act*, S.B.C. 2010, c. 22 (the *CEA*). Note that neither of these provisions apply to FBC for the purposes of this filing;
- (d) whether the demand-side measures are cost-effective within the meaning prescribed by regulation, if any; and
- (e) the interests of persons in British Columbia who receive or may receive service from the public utility.

20. Each of these considerations is addressed in this Final Argument. Also addressed is FBC's response to prior BCUC directives applicable to the DSM Plan, which consist of only the following from Decision and Order G-113-18 (at p. 4) accepting FBC's 2018 DSM expenditure schedule for filing:

It is recognized that the timing of the completion of the market potential study prevented FBC from including the results in the formation of the 2018 DSM Plan. The Panel supports these additional scope items from the CPR as a means of strengthening the scope and effectiveness of FBC's DSM portfolio. In its next DSM expenditure schedule filing and long term electricity resource plan (as applicable), the Panel encourages FBC to provide a clear explanation of how the CPR and market potential study results have been utilized in the development of the respective DSM plan. The Panel also anticipates that FBC's next expenditure schedule will incorporate BCUC directions from the 2016 LTERP Decision.

21. The BCUC's decision regarding the 2016 LTERP and LT DSM Plan did not ultimately contain any directives applicable to the 2019-2022 DSM Plan.

B. *Clean Energy Act*

22. Among the matters the BCUC is required to consider under s. 44.2(5) is "the applicable of British Columbia's energy objectives". BC's energy objectives are set out in section 2 of the *CEA*.

23. The BCUC has discussed the following as being the most relevant energy objectives for the purposes of FBC's DSM expenditure schedule filings in a prior proceeding:¹⁶

- to take demand-side measures and to conserve energy (*CEA*, s. 2(b));
- to use and foster the development in British Columbia of innovative technologies that support energy conservation and efficiency and the use of clean or renewable resources (*CEA*, s. 2(d));
- to reduce BC greenhouse gas emissions by the amounts and at the time intervals prescribed in s. 2(g)(i)-(v) of the *CEA*;
- to encourage the switching from one kind of energy source or use to another that decreases greenhouse gas emissions in British Columbia (*CEA*, s. 2(h));
- to encourage communities to reduce greenhouse gas emissions and use energy efficiently (*CEA*, s. 2(i)); and
- co-ordination of DSM activities.¹⁷

24. As discussed further below, the 2019-2022 DSM Plan is supportive of or consistent with all of these objectives.

C. The *DSM Regulation*

i. Cost Effectiveness

25. Section 44.2(5)(d) of the *UCA* requires the BCUC to consider whether the DSM expenditures proposed by FBC are “cost-effective” within the meaning of the *DSM Regulation*.

¹⁶ Decision and Order G-186-14, Application for Approval of DSM Expenditures for 2015 and 2016 (**2015-2016 DSM Decision**), p. 1

¹⁷ FBC notes that this objective is not explicitly stated in the *CEA*, but was considered to be a relevant objective in the BCUC's review of the 2015-16 DSM Plan.

26. Section 4(1) of the *DSM Regulation* gives the BCUC discretion to determine cost-effectiveness based on: (a) a review of each individual DSM measure; (b) a comparison of DSM measures in the portfolio; or, (c) the DSM portfolio as a whole. The BCUC has consistently opted to review the cost-effectiveness of FBC's DSM filings at the portfolio level, including with respect to the LT DSM Plan.¹⁸ In its decision regarding FBC's 2015-16 DSM Plan, the BCUC described this approach as providing FBC "with the flexibility to undertake programs that are expected to provide a net BC benefit but where energy savings are hard to measure or low in the short term, provided there are other programs in its portfolio that provide offsetting benefits and/or savings".¹⁹
27. FBC submits that a portfolio level approach to cost effectiveness remains appropriate for review of the current DSM Plan.
28. A combination of sections 4(1.1) and (1.5) of the *DSM Regulation* establish the tests the BCUC must use in determining cost-effectiveness. In effect, at least 90% of the DSM expenditures in the portfolio must pass the TRC test. In addition, up to 10% of DSM expenditures in the portfolio are permitted to pass a modified total resource cost (**mTRC**) test. The TRC is the ratio of the benefits of a DSM measure divided by the cost of the measure, including the utility's program costs.²⁰ The benefits are the "avoided costs", calculated as the present value over the measures' effective life of: (i) the energy savings, valued at the long run marginal cost (**LRMC**); and (ii) the demand savings, valued at the deferred capital expenditure (**DCE**) cost.²¹
29. Section 4(1.1)(b) of the *DSM Regulation* specifies that the LRMC value to be used in calculating the avoided electricity cost is "an amount the commission is satisfied represents FortisBC Inc.'s long-run marginal cost of acquiring electricity generated from clean or renewable resources in British Columbia". The energy and demand savings used

¹⁸ Decision and Order G-117-18, FBC 2016 LTERP and LT DSM Plan (**LT DSM Plan Decision**), p. 10-11; see also 2015-16 DSM Decision, p. 4, and Ex. B-1 (Application), p. 22

¹⁹ 2015-16 DSM Decision, p. 4

²⁰ Ex. B-1 (Application), p. 23

²¹ *Ibid.*

in the TRC calculation are also grossed-up by the avoided transmission and distribution energy losses (i.e. line losses) of 8% before the benefits are calculated.²²

30. The mTRC modifies the TRC to include consideration of non-energy benefits to the utility and customers or, if no such benefits are factored in, allows for a 15% increase in the benefits of the expenditure portfolio.²³ Section 4(1.5) of the *DSM Regulation* sets an mTRC “cap” that limits the non-energy benefits added to a maximum of 10% of the total expenditures in an electricity DSM expenditure portfolio.
31. As described in more detail in the Application, the *DSM Regulation* also provides for different cost-effectiveness treatment for certain categories of DSM measures; in particular, low-income measures or charity programs (see s. 4(2)) and “specified demand-side measures” (see s. 4(4)).²⁴
32. FBC has followed the cost effectiveness testing methodology set out in the *DSM Regulation* for the purposes of developing the DSM Plan.

ii. Adequacy

33. Section 3 of the *DSM Regulation* also defines the criteria for the BCUC’s consideration of whether a long term resource plan shows that a utility “intends to pursue adequate ... [DSM] measures” under section 44.1(8) of the *UCA*. While the “adequacy” requirement is not an express consideration in respect of a DSM expenditure schedule application under s. 44.2(5) of the *UCA*, 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*.²⁵
34. Prior to a March 2017 amendment to the *DSM Regulation*, the adequacy requirements were fulfilled through the implementation of DSM measures that address specific issues related to low-income households, rental accommodations, and educational programs for

²² Ibid.

²³ *DSM Regulation*, s. 4(1.1)(c)

²⁴ Ex. B-1, p. 23-24

²⁵ See LT DSM Plan Decision, p. 13 (“Further, the adequacy requirements set out in section 3 of the *DSM Regulation* will be assessed with each future DSM expenditure schedule filing.”)

students enrolled in schools and post-secondary institutions in a utility's service area.²⁶ The amendments to the *DSM Regulation* added two further adequacy criteria to section 3(1), namely:

- Pursuant to s. 3(1)(e), one or more “specified” DSM measures, as set out in paragraph (3) of the definition in section 1, representing no less than 1% of per year DSM expenditures. These specified DSM measures under s. 3(1)(e) are financial or other resources that support the development of or compliance with standards respecting energy conservation or efficient use of energy; and
- Pursuant to s. 3(1)(f), DSM measures intended to result in the adoption by local governments and first nations of a step code or more stringent requirements within a step code.

35. As described in the Application, FBC's 2019-2022 DSM expenditure schedules include funding on measures that satisfy each of the adequacy requirements in the *DSM Regulation*, as amended.²⁷

PART 4 - REVIEW OF FBC'S 2019-2022 DSM EXPENDITURE PORTFOLIO

A. Consistency with the 2016 LTERP and LT DSM Plan

36. In assessing the Application, the BCUC is required to consider, per section 44.2(5)(b) of the *UCA*, the most recent long-term resource plan filed by FBC under section 44.1. The BCUC's general practice in respect of prior expenditure schedule applications has been to review the DSM funding proposal and savings targets in the expenditure schedule for consistency with the most recent long term resource plan. In the BCUC's decision regarding FBC's 2015-2016 DSM Plan, the Panel described the relationship between a long term resource plan and DSM expenditure schedule filing as follows:

The Commission Panel considers that, ideally, a utility should first file a LTRP with a DSM Plan under section 44.1(8)(c) and then file a DSM expenditure schedule. This will allow the utility to receive guidance

²⁶ *DSM Regulation*, s. 3(1)(a)-(d)

²⁷ Ex. B-1 (Application), p. 6-9

regarding the overall size and approach of the DSM funding proposal prior to filing the detailed DSM expenditure schedule.²⁸

37. On the other hand, the *UCA* only requires the BCUC to consider the most recent long term resource plan, among other factors, in reviewing a DSM expenditure schedule for acceptance. FBC's DSM expenditure schedules are not bound to follow its prior long term resource plan (which in any event contain only high-level assessment of the appropriate levels of DSM activity and pro forma budgets) and nothing in the *UCA* prevents FBC from seeking acceptance of or the BCUC approving levels of DSM spending that are higher than contemplated in a long term resource plan where the circumstances warrant.²⁹
38. In the present case, the 2019-2022 DSM Plan is largely consistent with the accepted LT DSM Plan and the variances are primarily explained by the unanticipated changes in customer activities in FBC's service territory (i.e. the new cannabis production facilities).
39. The measures included in the current DSM Plan are consistent with the measures assessed and benefit/cost methodology used in the 2016 LTERP and LT DSM Plan: these measures pass the TRC test and address the key end-uses of FBC's principal rate classes as contemplated by the 2016 LTERP and LT DSM Plan.³⁰ Measures that were included in the BC CPR filed with the LT DSM Plan were only excluded from the 2019-2022 DSM Plan where they were not applicable in FBC's service territory, had limited savings potential, had limited applicability to DSM programs, or involved complex end uses that are more effectively managed through government regulation (e.g. consumer electronics).³¹
40. FBC has also used the CPR market potential analysis, contemplated by the LT DSM Plan, to assess savings potential for each DSM measure and calibrated its programs where appropriate; for example, FBC revised its forecast for residential lighting based on the

²⁸ 2015-16 DSM Decision, p. 33

²⁹ Ex. B-4 (Response to CEC IR 1.1.1), p. 1-2

³⁰ Ex. B-1 (Application), p. 5

³¹ Ex. B-2 (Response to BCUC IR 1.1.2), p. 5

CPR market potential results and added communicating (smart) thermostats to its Residential program area based on the CPR results.³²

41. In addition, the cost effectiveness testing applied to the 2019-2022 DSM Plan was based on the LRMC value for BC clean or renewable resources of \$100/MWh, developed pursuant to the 2016 LTERP and LT DSM Plan.³³
42. The level of load growth off-set to be achieved through implementation of the 2019-2022 DSM Plan also exceeds the targeted percentage for the same period contemplated by the LT DSM Plan. Specifically, the average load growth off-set over the four year DSM Plan period is approximately 85%, whereas the LT DSM Plan targeted an off-set of 72% for the same period.³⁴ When forecast load growth and energy savings associated with the cannabis industry is excluded from the calculation, the 2019-2022 DSM Plan averages a 69% load growth off-set, which is closely comparable to the target in the LT DSM Plan.³⁵
43. As noted, the 2019-2022 DSM Plan incorporates an additional \$7.7 million in expenditures and an increase in savings of 19.4 GWh compared to the pro forma budgets for the same period in the LT DSM Plan.³⁶ The increased energy savings are all attributable to forecast activity with respect to the emergent cannabis production industry. Over half of the increased spending is likewise associated with cannabis production, while the balance is from increased spending for the Residential Customer Engagement Tool (**CET**) (\$1.1 million), the Demand Response (**DR**) pilot (\$1.0 million), and the DSM Tracking Tool (\$0.6 million).³⁷ These Supporting Initiatives were not included in the LT DSM Plan, which is not an expenditure schedule filing and therefore does not include detailed program listings for such measures and associated costing.³⁸ In addition, FBC

³² Ex. B-2 (Response to BCUC IR 1.2.6), p. 12

³³ Ex. B-1 (Application), p. 5

³⁴ Ex. B-2 (Response to BCUC IRs 1.1.1 and 1.1.1.2), p. 3, 4

³⁵ Ex. B-2 (Response to BCUC IRs 1.1.1.1 and 1.1.1.2), p. 4

³⁶ Ex. B-1-1 (Errata), Table 1-1

³⁷ Ex. B-1, Appendix A (DSM Plan), p. 1

³⁸ Ex. B-2 (Response to BCUC IR 1.1.3), p. 7

was not actively planning the DR pilot or the DSM Tracking Tool at the time the 2016 LTERP and LT DSM Plan were prepared.³⁹

44. While these do reflect quantitative changes as compared to the LT DSM Plan, in FBC's submission they are consistent in principle with the 2016 LTERP and LT DSM Plan. In particular, the 2016 LTERP evaluated a number of non-traditional load drivers, based on emerging trends and technologies, which could impact FBC's future load requirements relative to the reference case forecast. Among these was "Large Load Sector Transformation: unanticipated growth of large load customers not associated with traditional energy intensive industries".⁴⁰ Such unanticipated load growth at the time of the 2016 LTERP and LT DSM Plan has now materialized in the form of the 17 plus cannabis production facilities that are expected to become operational in FBC's service territory over the course of the 2019-2022 DSM Plan.
45. Responding to the DSM opportunities presented by this increase in customer load, while it necessitates advancing the spending and savings contemplated in the LT DSM Plan, is the prudent and appropriate approach to take. It is also, in itself, consistent with the 2016 LTERP and the potential changes in load requirements through non-traditional load drivers that were contemplated over the planning horizon.

B. Cost-Effectiveness

46. As noted above, FBC used the approved LRMC value of \$100 per MWh developed for the 2016 LTERP and LT DSM Plan for the purposes of evaluating the cost-effectiveness of the 2019-2022 DSM Plan. This LRMC value is considered "firm" energy and is inclusive of generation capacity benefits.⁴¹ FBC also used the previously accepted Deferred Capital Expenditures (**DCE**) value of \$79.85 per kW per year to represent the incremental savings of deferred infrastructure.⁴² This is consistent with s. 4(1.1)(b) of the *DSM Regulation*, which provides that FBC use the "avoided capacity cost" in addition to

³⁹ Ibid.

⁴⁰ Ex. B-1 (Application), p. 6

⁴¹ Ex. B-1 (Application), p. 24

⁴² Ibid.

the LRMC in calculating measure benefits. FBC also explained in IR responses the appropriateness of using a DCE factor in calculating DSM benefits given that co-incident DSM demand savings defer the need for system upgrades.⁴³

47. Based on the above-noted LRMC and DCE, the TRC test results for the DSM Plan show a benefit/cost (**B/C**) ratio of 1.5 at the portfolio level.⁴⁴ Sector and program level TRC results are all individually above unity as well.⁴⁵ The measures included in the DSM Plan passed the TRC test, without requiring the use of the 15% benefits adder under the mTRC.⁴⁶

48. FBC has also provided the results for other industry standard DSM cost-effectiveness tests in the Application, such as the Ratepayer Impact Measure (**RIM**), the Utility Cost Test (**UCT**), and the Participant Cost Test (**PCT**).⁴⁷

49. Based on the foregoing, and the TRC results specifically, FBC submits that the 2019-2022 DSM Plan is clearly cost effective within the meaning of the governing legislation.

C. Adequate DSM Measures

50. The 2019-2022 DSM Plan includes a variety of measures and programs that satisfy the “adequacy” criteria set out in s. 3(1) of the *DSM Regulation*.

51. FBC’s Low Income, Rental Accommodation, and Education programs are summarized at Sections 3.4.1, 3.4.2, and 3.4.3 of the Application. Further detail is provided in the DSM Plan itself.⁴⁸ These programs satisfy the criteria described in section 3(1)(a)-(d) of the *DSM Regulation*.

⁴³ See Ex. B-2 (Responses to BCUC IR 1.7.3.1 and 1.7.4), p. 28-29

⁴⁴ Ex. B-1 (Application), p. 14 (Table 5-1)

⁴⁵ Ex. B-1, Appendix A (DSM Plan), p. 21 (Table 10-1).

⁴⁶ Ex. B-1 (Application), p. 24; see also Ex. B-4 (CEC IR 1.11.3), p. 27 (noting that some measures did not pass the TRC individually, but the program in which they were bundled passed the TRC as a whole without using the mTRC).

⁴⁷ Ex. B-1 (Application), p. 24-25

⁴⁸ Ex. B-1 Appendix A (DSM Plan), p. 5, 6-7, 12-13

52. With respect to the new adequacy requirement set out at s. 3(1)(e) of the *DSM Regulation*, FBC's DSM Plan includes proposed funding of \$435,000 for Codes and Standards (**C&S**) within the "Supporting Initiatives" sector. This represents 1% of the total, four year expenditure schedule of \$43.4 million, in conformity with section 3(1)(e) of the *DSM Regulation*.⁴⁹ A portion of this funding is allocated to advancing the BC Energy Step Code and the budget also includes support for high performance builder training, quality installation manuals, as well as energy modelling and blower door testing by certified energy advisors.⁵⁰ FBC believes this level of C&S spending is the most appropriate for the size of its 2019-2022 DSM Plan.⁵¹

53. The DSM Plan also satisfies the adequacy requirement in section 3(1)(f) through Supporting Initiatives, which includes funding for Community Energy Planning (**CEP**) and Community Energy Specialists. Local governments, including First Nations, can access CEP assistance to support the adoption of the progressive provincial Step Code for new construction using FBC's New Home Program under its Residential DSM programs.⁵²

D. Applicable BC Energy Objectives

54. The following are BC's energy objectives that FBC submits are applicable for the purposes of evaluating the DSM Plan and how the DSM Plan supports these objectives.

i. To take demand-side measures and to conserve energy (CEA, s. 2(b))

55. The Application and DSM Plan show FBC's continued commitment to DSM and conservation of energy in the province. While not a mandated requirement for FBC, the DSM Plan exceeds the 66% load growth off-set applicable to BC Hydro under the *CEA*.⁵³

56. A list of all measures included in the DSM Plan and their TRC was provided as Attachment 11.3 to FBC's responses to IRs from the Commercial Energy Consumers

⁴⁹ Ex. B-1 (Application), p. 9

⁵⁰ Ex. B-1, Appendix A (DSM Plan), p. 15

⁵¹ Ex. B-4 (Response to CEC IR 1.23.2), p. 52-53

⁵² Ex. B-1 (Application), p. 9

⁵³ Ex. B-2 (Response to BCUC IR 1.1.1.2), p. 4

Association of BC (CEC).⁵⁴ The DSM Plan includes all identified measures that are cost effective under the TRC test; no additional measures that would have passed the mTRC were identified.⁵⁵ This approach certainly supports the energy objective to take DSM measures and conserve energy. As the BCUC recognized in its decision regarding the 2016 LTERP and LT DSM Plan, “the UCA does not compel FBC to pursue any and all DSM resources that are cost effective”.⁵⁶

ii. To use and foster the development in British Columbia of innovative technologies that support energy conservation and efficiency” (CEA, s. 2(d))

57. The DSM Plan includes expenditures totalling \$550,000 on Innovative Technologies, within the Portfolio Expenditures program area.⁵⁷ This funding will support feasibility studies, field studies, and pilots to validate customer acceptance of and energy savings from innovative equipment and systems. Examples are the filed study to monitor cold climate heat pumps (CCHP) and FBC’s proposal to Natural Resources Canada (NRCan) to co-fund a CCHP study, in collaboration with BC Hydro and the BC Ministry of Energy and Mines.⁵⁸

58. Another feature of the DSM Plan that supports the objective of fostering innovative energy conservation in BC is the Kelowna Area DR Pilot project. FBC engaged Enbala Power Networks (Enbala), a qualified consultant, to perform the first phase evaluation of DR potential for commercial, industrial, and institutional customers in the Kelowna area; the resulting report was attached as Appendix A-1 to the Application. Total expenditures over subsequent phases of the DR pilot are budgeted at \$1.045 million for the 2019-2022 period covered by the DSM Plan.⁵⁹

⁵⁴ Ex. B-4, Attachment 11.3

⁵⁵ Ex. B-2 (Response to BCUC IR 1.7.6.1), p. 30

⁵⁶ LT DSM Plan Decision, p. 12

⁵⁷ Ex. B-1, Appendix A (DSM Plan), p. 17

⁵⁸ Ex. B-1, Appendix A (DSM Plan), p. 18-19

⁵⁹ Ex. B-1, Appendix A (DSM Plan), p. 20, Table 9-1

59. FBC selected the Kelowna area for the DR Pilot because it has the greatest concentration of customers in FBC's service territory and is experiencing significant growth.⁶⁰ The DR Pilot is a proof-of-concept initiative for FBC to gain experience with DR technology and an understanding of its capabilities and associated benefits.⁶¹ FBC anticipates the proposed DR pilot will inform a business case on whether to pursue DR on a larger scale, including targeting both Kelowna and other constrained areas for both summer and/or winter capacity relief.⁶² FBC anticipates future DR assessments will include residential and small commercial end-uses.⁶³

iii. To encourage communities to reduce greenhouse gas emissions and use energy efficiently (CEA, s. 2(i))

60. Local government and institutional strategic energy planning, as well as community education and outreach are enabled through FBC's Supporting Initiatives.⁶⁴

61. In particular, the DSM Plan includes the Commercial Energy Specialist Program and the Community Energy Specialist Program. The first mentioned program is a joint initiative between FBC and FortisBC Energy Inc. (FEI) to co-fund the Commercial Energy Specialist position in large commercial organizations; the key priority of this position is identify and implement opportunities for their organization to participate in FBC and FEI's DSM programs.⁶⁵

62. The Community Energy Specialist Program, on the other hand, provides financial assistance to local governments, including Indigenous communities and institutional customers to facilitate energy efficiency planning activities, like the development of community energy plans, energy efficient design practices and organizational policies that promote efficient energy use and conservation.⁶⁶ The Community Energy Specialist

⁶⁰ Ex. B-2 (Response to BCUC IR 1.18.1.1), p. 90

⁶¹ Ex. B-2 (Response to BCUC IR 1.18.2), p. 91

⁶² Ex. B-3 (Response to BCSEA IR 1.11.3), p. 34

⁶³ Ex. B-3 (Response to BCSEA IR 1.11.2), p. 34

⁶⁴ Ex. B-1, Appendix A (DSM Plan), p. 14-15

⁶⁵ Ex. B-1, Appendix A (DSM Plan), p. 14

⁶⁶ Ibid.

program is collaboration with FEI and Climate Action Partners that supported two specialist positions in 2018 on a pilot project basis.⁶⁷

63. These and other programs and initiatives included in the DSM Plan demonstrate that the DSM Plan promotes the energy objective of encouraging communities to reduce GHG emissions and use energy more efficiently.

iv. To coordinate DSM activities with other public utilities.⁶⁸

64. FBC continues to work collaboratively with other public utilities on DSM related activities. The BC CPR, a collaboration with BC Hydro and FEI, is a recent example of such initiatives. Other collaborative DSM activities include:

- Residential Home Renovation program, which encourages customers to take a whole-home approach to energy efficiency upgrades; by design, this program enables partnerships with BC Hydro, FEI, and all levels of government.⁶⁹
- Residential Lighting, in which FBC collaborates with BC Hydro, retailers, and distributors to offer point-of-sale incentive programs to help build market transformation and improve customer participation.⁷⁰
- Rental Apartment Efficiency Program, which is a collaboration with FEI.⁷¹
- Commercial Custom Program, which is administered jointly with FEI.⁷²

v. To encourage switching from one kind of energy source or use to another that decreases GHG emissions in BC (CEA, s. 2(h))

65. FBC has not included any gas to electricity fuel switching measures in the 2019-2022 DSM Plan. Such “electrification” prescribed undertakings now receive different

⁶⁷ Ex. B-6 (Response to MoveUP IR 1.3.1), p. 8

⁶⁸ 2015-16 DSM Decision, p. 12, 15

⁶⁹ Ex. B-1, Appendix A (DSM Plan), p. 3

⁷⁰ Ex. B-1, Appendix A (DSM Plan), p. 4

⁷¹ Ex. B-1, Appendix A (DSM Plan), p. 5

⁷² Ex. B-1, Appendix A (DSM Plan), p. 9

regulatory treatment under section 4 of the *Greenhouse Gas Reduction (Clean Energy) Regulation*, B.C. Reg. 102/2012, and section 18 of the *CEA*.⁷³

66. As set out in the Application, FBC does pursue initiatives that promote fuel-switching outside of its DSM plans; examples include the construction of the Kootenay Electric Vehicle (**EV**) charging network and FBC's plans to pursue construction of additional EV charging facilities in its service territory.⁷⁴

E. The Interests of Present and Future FBC Ratepayers

67. The final consideration under the *UCA* is the interests of persons in British Columbia who receive or may receive service from FBC (s. 44(5)(e)). FBC submits that the proposed DSM programs and expenditures in the 2019-2022 DSM Plan support the interests of its ratepayers and potential ratepayers.

68. The 2019-2022 DSM Plan was developed using FBC's guiding principles for DSM planning, which are set out at Section 5.1 of the Application.⁷⁵ FBC also undertook an in-depth and varied consultation process, which formed a key input into the development of the DSM Plan.⁷⁶ This consultation included communities, customers, contractors, manufacturers, government, First Nations, vendors, interest groups, and the Energy Efficiency and Conservation Advisory Group (**EECAG**).⁷⁷ Most of the key learning from the consultation process was market data refinement, but FBC also received various directional feedback (listed at Section 5.2 of the Application) that was taken into account in the development of the DSM Plan.⁷⁸ The consultations revealed that satisfaction appeared to be high for FBC in its DSM programming.⁷⁹

69. The 2019-2022 DSM Plan reflects a robust suite of cost-effective DSM measures that builds upon existing FBC programs and addresses the key end-uses of FBC's principal

⁷³ Ex. B-3 (Response to BCSEA IR 1.14.2), p. 75

⁷⁴ Ex. B-1 (Application), p. 5

⁷⁵ Ex. B-1 (Application), p. 11-12

⁷⁶ Ex. B-1 (Application), p. 12

⁷⁷ Ex. B-1 (Application), p. 13

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*

rate classes. A comparison to other utilities and jurisdictions in North America shows FBC to be well above average in a variety of energy conservation metrics.⁸⁰ The DSM Plan is also consistent with applicable legislation, supportive of provincial energy objectives, and compatible with FBC's approved 2016 LT DSM Plan. It also reflects an appropriate and reasonable response to emergent customer activities that will drive increases in FBC's load over the period covered by the plan.

70. FBC submits that the 2019-2022 DSM Plan is in the interests of its current and future ratepayers.

F. Response to Previous BCUC Directives

As noted above, the only applicable "directive" from the BCUC was its encouragement for FBC to explain how the CPR and market potential results have been utilized in the development of the 2019-2022 DSM Plan. FBC provided such an explanation at Section 5.4 of the Application and in various IR responses in this proceeding.⁸¹

PART 5 - REVIEW OF DSM PROGRAM SECTORS

A. Residential Sector

71. FBC's 2019-2022 DSM Plan includes a Residential sector budget totalling \$9.7 million over four years and target energy savings totalling 24.1 GWh.⁸² The budgeted expenditures in each year of the DSM Plan (increasing from \$2.1 million in 2019 to \$2.8 million in 2020) reflect a material increase compared to the 2018 DSM Plan.⁸³

72. FBC's responses to BCUC IRs identify the variances in expenditures in Residential programs compared to the 2018 DSM Plan and explain the reasons for significant increases in both the Home Renovation and New Home programs.⁸⁴

⁸⁰ Ex. B-2 (Response to BCUC IR 1.4.4.1), p. 19

⁸¹ See e.g. Ex. B-2 (Response to BCUC IRs 1.2.4 and 1.2.6), p. 10-11, 12

⁸² Ex. B-1 (Application), p. 14, Table 5-1

⁸³ Ibid.

⁸⁴ Ex. B-2 (Response to BCUC IRs 1.10.1-1.10.3), p. 49-52

B. Low Income Sector

73. FBC's DSM Plan includes a Low Income budget totalling \$3.5 million over four years and target energy savings totalling 4.9 GWh.⁸⁵ Annual expenditures over the course of the DSM Plan (increasing from \$843,000 in 2019 to \$930,000 in 2022) represent an increase over the budget in FBC's 2018 DSM Plan.⁸⁶
74. The targeted savings in the Low Income sector (after being corrected pursuant to the Errata, Ex. B-1-1) over the course of the 2019-2022 DSM Plan are similar to the 2018 DSM Plan.⁸⁷ FBC explained the small variances in savings relative to expenditures in its IR responses.⁸⁸
75. FBC believes its outreach efforts in the Low Income sector in 2018 have been successful overall, and further expects that programs with longer engagement periods will have stronger participation starting in 2019.⁸⁹ Low Income outreach activities will be sustained throughout the duration of the 2019-2022 DSM Plan.⁹⁰

C. Commercial Sector

76. FBC's DSM Plan includes a Commercial sector budget totalling \$12.3 million over four years and target energy savings totalling 61.8 GWh.⁹¹
77. The annual budgeted spending in the Commercial sector declines over the course of the DSM Plan and reflects a slight reduction in expenditures compared to the 2018 DSM Plan. This is primarily due to the maturation and transformation of the LED lighting market; the CPR market potential shows a declining market potential for commercial lighting measures and incentives supporting LED lighting and controls represent approximately 90% of the Commercial Prescriptive Program.⁹² FBC began offering new non-lighting

⁸⁵ Ex. B-1-1 (Errata), p. 14

⁸⁶ Ex. B-1 (Application), p. 14, Table 5-1; Ex. B-2 (Response to BCUC IR 1.11.2), p. 57

⁸⁷ Ex. B-3 (Response to BCSEA IR 1.6.1), p. 23-24

⁸⁸ Ibid.

⁸⁹ Ex. B-2 (Response to BCUC IR 1.11.3), p. 58

⁹⁰ Ex. B-2 (Response to BCUC IR 1.11.4), p. 59

⁹¹ Ex. B-1 (Application), p. 14, Table 5-1

⁹² Ex. B-2 (Response to BCUC IR 1.12.3), p. 62

prescriptive measures in the Commercial sector in 2018 and expects this market to grow; however, the decline in lighting-related measures results in an overall reduction of expenditures in this sector over the 2019-2022 period.⁹³

D. Industrial Sector

78. FBC's DSM Plan includes an Industrial sector budget totalling \$7.2 million over four years and target energy savings totalling 40.2 GWh.⁹⁴

79. This represents a significant increase compared with the 2018 DSM Plan and is largely attributable to lighting measures in relation to the new cannabis production facilities being constructed in FBC's service territory.⁹⁵ However, even in the absence of expenditures to support energy efficiency in new cannabis production facilities, the 2019-2022 DSM Plan still represents additional planned expenditures to encourage industrial retrofits by increasing both the energy study and capital incentives.⁹⁶ These increases in incentive spending represent an increase of approximately \$0.3 million per annum compared to planned 2018 DSM expenditures.⁹⁷

80. With respect to DSM incentives targeted at cannabis production facilities in the Industrial sector, the incentives are in place to address the additional cost to install LED grow lights over high-intensity discharge (**HID**) lights.⁹⁸ Some customers have expressed that the technological certainty of HID lights, which are of known quality in this application, is more important than potential energy savings; therefore, it can be inferred that cannabis production facilities would not pursue more efficient LED lighting in the absence of DSM incentives from FBC.⁹⁹

81. FBC does not expect to be able to off-set all of the increased load growth from cannabis production facilities in its service territory through DSM given the relative magnitude of

⁹³ Ibid.

⁹⁴ Ex. B-1 (Application), p. 14, Table 5-1

⁹⁵ Ex. B-1 (Application), p. 14

⁹⁶ Ex. B-2 (Response to BCUC IR 1.14.1), p. 74

⁹⁷ Ibid.

⁹⁸ Ex. B-2 (Response to BCUC IR 1.13.4), p. 70

⁹⁹ Ex. B-2 (Response to BCUC IRs 1.13.3 and 1.13.4), p. 69-70

the increased load growth (forecast at an additional 325 GWh by 2022) compared to the estimated market potential that can be assessed with DSM programs.¹⁰⁰ FBC estimates that approximately 40% of the incremental load growth from cannabis production will be off-set by energy savings in the 2019-2022 DSM Plan.¹⁰¹

E. Conservation Education and Outreach

82. FBC's DSM Plan includes a Conservation Education and Outreach budget totalling \$2.3 million over four years.¹⁰²

83. Of this budget, \$1.1 million is proposed to be spent on development of the Residential CET over four years. This initiative plans to provide home energy reporting and other tools that will provide energy consumption analysis to customers, increase customer awareness of energy efficiency, and thereby foster increased conservation behaviour.¹⁰³ The initiative is a collaboration between FBC and FEI. Specific details regarding the CET budget are provided in response to BCUC IR 1.15.1.1 and cost sharing details between FBC and FEI are provided in response to BCSEA IRs 1.3.4-1.3.4.2.¹⁰⁴

84. Energy savings associated with the CET are based on behaviour changes and, because there is uncertainty regarding their relative magnitude, they cannot be effectively forecast at this time. Nonetheless, the CET will help ensure that DSM program information has a broad reach and that targeted energy conservation content that could not previously be delivered through traditional communication strategies will now reach FBC's customers.¹⁰⁵ Further, although not enough data exists to estimate energy savings associated with the CET in the current DSM Plan filing, FBC believes that such savings will be realized and plans to report those savings in future DSM annual reports.¹⁰⁶

F. Supporting Initiatives

¹⁰⁰ Ex. B-4 (Response to CEC IRs 1.3.9 and 1.3.10), p. 8

¹⁰¹ Ex. B-4 (Response to CEC IR 1.3.9, p. 8

¹⁰² Ex. B-1, Appendix A (DSM Plan), p. 12

¹⁰³ Ibid.

¹⁰⁴ Ex. B-2, p. 77; Ex. B-3, p. 13

¹⁰⁵ Ex. B-3 (Response to BCSEA IR 1.3.5), p. 14

¹⁰⁶ Ibid.

85. FBC's DSM Plan includes a budget for Supporting Initiatives totalling \$4.1 million over four years.¹⁰⁷

86. Of this budget, a total of \$1.1 million is allocated to the Commercial Energy Specialist Program and the Community Energy Specialist Program, which are described above at paragraphs 61-62.¹⁰⁸ FBC has explained its rationale for funding these positions within external organizations rather through FBC in-house resources in its IR responses.¹⁰⁹ FBC considers that funding these positions embedded within community and commercial organizations in its service territory is more effective at achieving implementation of energy efficiency projects that would not otherwise be pursued.

G. Demand Response Pilot

87. FBC's DSM Plan includes a budget for the Kelowna Area DR pilot totalling \$1.0 million over four years.¹¹⁰ As noted above, the DR pilot is a proof-of-concept initiative that will provide an opportunity for FBC to gain experience with DR technology and an understanding of its capabilities and benefits.¹¹¹ FBC anticipates the proposed DR pilot will inform a business case on whether to pursue larger scale DR, including targeting both Kelowna and other constrained areas for summer and/or winter capacity relief.¹¹²

88. FBC has completed the first phase of the DR Pilot in the form of the Enbala Screening Study (attached as Appendix A-1 to the DSM Plan), which indicated that there is sufficient DR capacity in the Kelowna area that could defer capital infrastructure investments.¹¹³ The second phase will simulate customers' DR potential against the system load profile for the Kelowna area in the last 3 years and the final phase, subject to RFP, would validate proof of concept through a pilot study of DR's ability to defer capital

¹⁰⁷ Ex. B-1 (Application), p. 14, Table 5-1

¹⁰⁸ Ex. B-1, Appendix A (DSM Plan), p. 14, Table 7-1

¹⁰⁹ Ex. B-2 (Response to BCUC IR 1.16.1), p. 80; see also Ex. B-6 (Responses to MoveUP IR 2.0 and 3.0 series), p. 5-16

¹¹⁰ Ex. B-1 (Application), p. 14, Table 5-1

¹¹¹ Ex. B-2 (Response to BCUC IR 1.18.2), p. 91

¹¹² Ex. B-3 (Response to BCSEA IR 1.11.3), p. 34

¹¹³ Ex. B-1, Appendix A (DSM Plan), p. 20

infrastructure investment in FBC's electric system.¹¹⁴ A detailed break-down and explanation of the expenditures on the second and third phases of the DR pilot project over the 2019-2022 period is provided in Section 9.1 and Table 9-1 of the DSM Plan.

89. FBC discussed the criteria it will use to evaluate the success of the DR pilot in response to the BCUC IR 1.18.2.¹¹⁵ If successful, the next steps involve using the DR pilot findings to inform a business case, including use-cases and benefits, to determine the potential for cost-effective DR.¹¹⁶ They could also potentially inform the resource options considered as part of FBC's next long term electricity resource plan.¹¹⁷ Depending on the outcome of the pilot, DR could be used to defer future capacity upgrades on FBC's system; specifically, DR may be a potential option to defer the addition of a second transformer at the DG Bell Terminal, which currently has an in-service date of December 2025.¹¹⁸

PART 6 - ADDITIONAL REGULATORY ISSUES

A. Amortization Period for DSM Expenditures

90. In addition to acceptance of the DSM expenditures for 2019-2022 outlined in the Application, FBC is also seeking BCUC approval to move from a 10-year to a 15-year amortization period for its DSM expenditures.

91. As discussed in Section 8.1 of the Application, a 15-year amortization period is appropriate given that FBC has determined the average weighted measure life of all measures in the DSM Plan to be 15.6 years.¹¹⁹ Using the average weighted measure life as the basis for the amortization period is more appropriate from a cost/benefits matching perspective.¹²⁰

¹¹⁴ Ibid.

¹¹⁵ Ex. B-2, p. 91

¹¹⁶ Ex. B-2 (Response to BCUC IR 1.18.2.1), p. 91

¹¹⁷ Ex. B-2 (Response to BCUC IR 1.18.2.1.1), p. 92

¹¹⁸ Ex. B-2 (Response to BCUC IR 1.18.3), p. 92

¹¹⁹ Ex. B-1 (Application), p. 28

¹²⁰ Ibid.

92. As discussed in IR responses, the average measure life weighted by savings is itself 14 years.¹²¹ FBC calculated the average measure life weighted by expenditures in the Application as a basis for the proposed amortization period primarily because there is more certainty with measure and program costs, which are reflected in FBC's accounts the year they are incurred, whereas benefits streams are not visibly shown in FBC's accounts and can be impacted by changes in various factors (avoided costs, measure retention, obsolescence, etc.).¹²² In any event, taking a middle point between the average measure life weighted by expenditures (15.6 years) and savings (14.0 years) would result in an average measure life of 14.8 years. This value should be rounded up to 15 years (consistent with FBC's proposal) given the impracticality and false precision of a 14.8 year amortization period.¹²³
93. To the extent that customer rate impacts should be a consideration for this matter, FBC notes that, based on spending levels consistent with 2018, changing to a 15-year amortization period results in a cumulative rate impact that is lower by 0.45% over the four year period of the current DSM Plan.¹²⁴ Changing to a 15-year amortization period is also consistent with utility practices in other jurisdictions. Although there is limited publically available information on this topic, three public utilities were identified in other jurisdictions that all use amortization periods of 15 years or more (two of them, PSE&G and BC Hydro use a 15-year amortization period for DSM expenditures and the other, Seattle City Light, has a 20-year amortization period).¹²⁵
94. For these reasons, FBC submits that its proposed change from a 10-year to a 15-year amortization period for DSM expenditures should be accepted.

B. DSM Funding Transfers

i. "Rollover" Mechanism

¹²¹ Ex. B-2 (Response to BCUC IR 1.8.1), p. 34-35

¹²² Ex. B-2 (Response to BCUC IR 1.8.2), p. 37

¹²³ Ex. B-2 (Response to BCUC IR 1.8.2.1.1), p. 38

¹²⁴ Ex. B-2 (Response to BCUC IR 1.8.3), p. 38

¹²⁵ Ex. B-2 (Response to BCUC IR 1.8.6), p. 40-41; Note that para. 1(vi) of BCUC Order G-77-12A regarding BC Hydro's F2012 to F2014 Revenue Requirements approved BC Hydro to change the amortization period from 10 to 15 years for all past and future DSM expenditures.

95. An additional administrative approval FBC seeks in the Application is the ability to transfer or “rollover” unspent DSM expenditures in a Program area to the same Program area in the following year.¹²⁶ FBC’s proposal is for a cumulative expenditure rollover, year-to-year, such that by the end of the four year period covered by the DSM Plan total actual DSM expenditures would be up to the \$44.0 million total for the DSM Plan as a whole.¹²⁷
96. This funding transfer proposal would give FBC flexibility to adjust its DSM spending to new information, program results, and other opportunities without the need for BCUC review, which is particularly important given the length of time the DSM Plan covers.¹²⁸ The rollover mechanism will give FBC the opportunity to catch-up its DSM spending in subsequent years of the DSM Plan if market conditions, customer response or other external factors impact the planned timing of DSM expenditures and increase the likelihood that FBC will be able to achieve its overall DSM expenditure plan for the 2019-2022 period.¹²⁹
97. Such a mechanism was unnecessary in the recent past given that FBC has sought BCUC acceptance of a series of two year, and then one year, DSM expenditure schedules dating back to 2015. However, in the case of the filed multi-year DSM Plan, the current process might result in underspend in a given year being locked in for the duration of the DSM Plan period.¹³⁰
98. FBC submits that the proposed rollover mechanism is reasonable, will promote increased DSM spending through the duration of the 2019-2022 DSM Plan period, and should be accepted.

ii. Funding Transfers Between Program Areas

¹²⁶ Ex. B-1 (Application), p. 29

¹²⁷ Ex. B-2 (Response to BCUC IR 1.9.1), p. 43

¹²⁸ Ex. B-1 (Application), p. 29

¹²⁹ Ex. B-2 (Response to BCUC IR 1.9.1.1), p. 43

¹³⁰ Ex. B-4 (Response to CEC IR 1.16.3), p. 38

99. In its response to BCUC IR 1.9.3 in this proceeding, FBC explained the reasons for its understanding – based on prior BCUC decisions – that there is no formal policy in effect at present that restricts transfers of DSM expenditures between program areas.¹³¹
100. FBC submits that its understanding as outlined in this IR response is valid and, further, that the BCUC should not require approval for funding transfers into or out of approved program areas. FBC considers that the existing regulatory requirements and processes, which include BCUC acceptance of DSM expenditure schedules, prescribed cost effectiveness tests, meetings of the EECAG, and FBC’s required DSM annual reporting provide sufficient oversight.¹³² If any such transfers occur that raise issues or concern with the BCUC, then regulatory processes can be implemented as warranted following the filing of FBC’s DSM Annual Reports.

C. Prorating of DSM Incentives for Self-Generating Customers

101. The Industrial Customer Group (ICG) posed a series of IRs to FBC regarding what it described as FBC’s “sliding scale” mechanism for calculation of DSM incentives for self-generating customers. FBC understands this to refer to its approach, as described in the LT DSM Plan, of prorating DSM incentives for self-generating customers based on the amount of FBC’s load that is actually reduced as a result of a particular conservation measure being adopted.
102. As explained in IR responses, FBC does not consider that pre-approval from the BCUC is necessary for it to calculate DSM incentives for self-generating customers using the sliding scale methodology.¹³³ In any event, FBC also notes that the sliding scale mechanism was described in detail in the LT DSM Plan and in IR responses during the 2016 LTERP/LT DSM Plan proceeding and that the BCUC accepted the LT DSM Plan, without limitation or reservation, as being in the public interest pursuant to Order G-117-18.¹³⁴ Additionally, the BCUC expressly approved of the underlying premise of

¹³¹ Ex. B-2, p. 45-46

¹³² Ex. B-2 (Response to BCUC IR 1.9.3.1), p. 46

¹³³ Ex. B-5 (Response to ICG IR 1.3.2), p. 4-5

¹³⁴ Ibid.

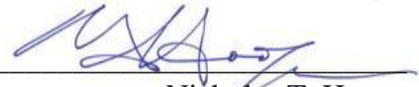
FBC's approach in its decision dismissing a complaint by Zellstoff Celgar Limited Partnership (Order L-14-18), where the Panel commented that in order for conservation projects or initiatives to qualify for DSM incentives, "the end use efficiency has to contribute to reducing the demand for the utility's energy services".¹³⁵

PART 7 - CONCLUSION

103. For all of the foregoing reasons, FBC submits that making the expenditures pursuant to its 2019-2022 DSM Plan would be in the public interest and that the BCUC should accept the expenditure schedules for this period pursuant to s. 44.2(3) of the *UCA*. A draft order is attached as Appendix C to the Application.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

November 13, 2018



Nicholas T. Hooge
Counsel for FortisBC Inc.

¹³⁵ Ibid.