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

Attention: Mr. Patrick Wruck, Commission Secretary

Dear Mr. Wruck

Re: FortisBC Inc.
Application for Acceptance of Demand-Side Management Expenditures Plan for the Period Covering 2023 to 2027
Final Argument of FortisBC Inc.

In accordance with the regulatory timetable set for the above referenced proceeding, we enclose for filing the Final Argument of FortisBC Inc. dated September 14, 2022.

Yours truly,

FASKEN MARTINEAU DuMOULIN LLP

Christopher Bystrom
Personal Law Corporation

/CB

BRITISH COLUMBIA UTILITIES COMMISSION

FORTISBC INC.

2023 TO 2027 DEMAND-SIDE MANAGEMENT EXPENDITURES PLAN

FINAL ARGUMENT

OF

FORTISBC INC.

SEPTEMBER 14, 2022

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PART ONE: INTRODUCTION AND OVERVIEW

1. FortisBC Inc. (FBC) filed its Application for Acceptance of Demand-Side Management (DSM) Expenditures from 2023 to 2027 (Application), on June 6, 2022. As set out in the Application, FBC is requesting acceptance from the British Columbia Utilities Commission (BCUC) pursuant to section 44.2 of the *Utilities Commission Act* of its DSM expenditures schedule from 2023 to 2027 (2023 to 2027 DSM Plan). The 2023 to 2027 DSM Plan includes $83.583 million in expenditures over five years, resulting in an estimated 143.4 GWh in energy savings and 62.1 MW of demand and capacity savings over that period.[1] Each of FBC's DSM program areas and individual DSM programs, including cost-effectiveness test results, are described in the FBC 2023-2027 DSM Plan Report in Appendix A of the Application. FBC submits that its 2023 to 2027 DSM Plan is cost effective pursuant to the *Demand-Side Measures Regulation* (DSM Regulation) and in the public interest, and should be accepted as filed.

2. FBC is also seeking approval of:

- proposed changes to its existing funding transfer and carryover rules to provide flexibility in the timing of expenditures within the proposed program areas;
- a new variance allowance rule on total portfolio expenditures in the final year of the DSM Plan to take into account the potential for reasonable variances from forecast; and
- a rate base deferral account to capture the regulatory costs associated with the review of this Application.

3. A Draft Order is attached as Appendix C to the Application.

4. The remainder of this Final Argument is organized around the following points:

- FBC's 2023 to 2027 DSM Plan is in the public interest.

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[1] Exhibit B-1, Application, p. 1; Exhibit B-2, BCUC IR1 3.1.

- FBC's proposed changes to the transfer and carryover funding rules are reasonable and will provide FBC with the flexibility to manage its DSM portfolio more effectively and carry out the accepted DSM plan, while accounting for reasonable variances from forecast.

- Approval of a deferral account for the recovery of regulatory costs is consistent with past practice and accepted regulatory practice.

PART TWO: FBC'S 2023-2027 DSM PLAN IS IN THE PUBLIC INTEREST

5. FBC submits that a consideration of the relevant factors shows that its 2023 to 2027 DSM Plan is in the public interest and should be accepted. Section 44.2 of the *Utilities Commission Act* states that, in considering whether to accept an expenditure schedule filed by a public utility other than British Columbia Hydro & Power Authority (BC Hydro), the BCUC must consider

a) the applicable of British Columbia's energy objectives,

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*,

d) if the schedule includes expenditures on demand-side measures, 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.

6. FBC discusses below how each of these considerations (excluding sections 6 and 19 of the *Clean Energy Act*, which do not apply to FBC in the context of this Application[2]) supports the conclusion that the 2023 to 2027 DSM Plan is in the public interest.

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[2] Section 6 of the *Clean Energy Act* concerns the self-sufficiency obligation of BC Hydro, and the obligation of other public utilities to consider self-sufficiency in the context of a long-term resource plan. Section 19 of the Clean Energy concerns clean and renewable resources, and no targets or guidelines have been enacted and the section is currently only applicable to BC Hydro.

A. 2023-2027 DSM Plan is Supported by Consideration of British Columbia's Energy Objectives

7. A consideration of British Columbia's energy objectives, as set out in section 2 of the CEA, supports acceptance of the 2023 to 2027 DSM Plan. Specifically, the 2023 to 2027 DSM Plan aligns with three key British Columbia energy objectives, as described in the table below.

BC's Energy Objectives Met by 2023-3027 DSM Plan

Energy Objective	2023-2027 DSM Plan
(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%;	The 2023 to 2027 DSM Plan will allow FBC to implement cost-effective demand-side measures, as defined by the DSM Regulation, and as set out in the FBC 2023-2027 DSM Plan Report.[3] These demand-side measures are estimated to result in 143.4 GWh of energy savings over the five years of the plan.[4]
(d) 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;	The 2023 to 2027 DSM Plan includes funding for Innovative Technology projects. As described in Section 9 of the FBC 2023-2027 DSM Plan Report, FBC's Innovative Technologies funding supports the development of or increased use of technologies that can achieve significant energy use reductions. FBC supports feasibility studies, field studies, and pilots to validate customer acceptance and energy savings of innovative equipment and systems.[5]

[3] Exhibit B-1, Appendix A.

[4] Exhibit B-1-1, Application, Table 4-2, restated more clearly in Exhibit B-7, CEC IR1 5.1.

[5] Exhibit B-1, Appendix A, Section 9.

Energy Objective	2023-2027 DSM Plan
(i) to encourage communities to reduce greenhouse gas emissions and use energy efficiently;	The 2023-2027 DSM Plan will encourage communities to reduce greenhouse gas emissions and use energy efficiently in various ways. Two notable examples are as follows. First, FBC's Community Education and Outreach initiatives provide education about conserving energy to foster a culture of conservation within the province by providing education to a broad range of customers and stakeholders, including hard-to-reach residential and commercial customers, and students. The goal of these programs is to inform customers on taking steps towards energy conservation and to learn about incentive programs.[6] Second, FBC's Enabling Activities (formerly called Supporting Initiatives) include the Commercial and Community Energy Specialist Programs, which support local government and institutional strategic energy planning. The Enabling Activities also include support for the development of codes and standards, including support for the advancement of the BC Energy Step Code.[7]

B. 2023-2027 DSM Plan is Based on FBC's Most Recent Long-Term Resource Plan and FBC Has Reasonably Explained the Differences Between the Two Plans

8. FBC has based the 2023-2027 DSM Plan on the Long-Term DSM Plan (LT DSM Plan) included in its 2021 Long-Term Electric Resource Plan (2021 LTERP) filed on August 24, 2021, which is FBC's most recent long-term resource plan. FBC has also reasonably explained the differences between the two plans, which are primarily attributable to the results of more detailed planning, which includes factors such as the result of stakeholder consultation and inclusion of demand response measures recently determined to be cost effective. FBC addresses these points in detail below.

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6 Exhibit B-1, Appendix A, DSM Plan, Section 7.

7 Exhibit B-1, Appendix A, DSM Plan, Section 8.

(a) 2023-2027 DSM Plan is Based on the Selected DSM Scenario in the 2021 LTERP

9. FBC 2023-2027 DSM Plan is at its root consistent with the 2021 LTERP because it is built on the targeted savings in the LT DSM Plan included in the 2021 LTERP and is based on the same Market Potential from FBC's latest Conservation Potential Review (CPR) on which the LT DSM Plan was also based.[8] FBC's LT DSM Plan is based on the results of FBC's latest CPR and reflects the appropriate level of cost-effective DSM resource acquisition to match FBC's resource needs over the LTERP's 20-year planning horizon. Therefore, FBC built up the 2023-2027 DSM Plan from the level of DSM in the LT DSM Plan and based on the results of FBC's latest CPR.[9]

10. FBC's latest CPR reviewed over 200 energy savings measures from the residential, commercial, and industrial sectors, and developed three different DSM potentials for FBC:[10]

- **Technical potential:** the hypothetical savings when each CPR measure immediately replaces its corresponding low-efficiency or minimum-code baseline measure wherever it is technically feasible.

- **Economic potential:** the subset of technical potential considering measures that have a benefit-cost ratio of 1.0 or higher.

- **Market potential:** the subset of economic potential that captures real-world dynamics influencing measure adoption, including replacement timing conservation, measure market maturity, and economic attractiveness, as assessed by payback acceptance curves.

11. FBC used the market potential to estimate the potential of DSM over a 20-year planning period for the purposes of the LT DSM Plan, and also used it to identify measures for potential incorporation into future DSM expenditure plans, including for 2023 to 2027.[11] The DSM

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8 Exhibit B-2, BCUC IR1 9.2.

9 Exhibit B-2, Application, p. The CPR is included as Appendix D of the Application.

10 Exhibit B-12, Application, p. 15.

11 Exhibit B-12, Application, p. 15.

measures included in the 2023-2027 DSM Plan are therefore consistent with the measures assessed and the benefit/cost methodology used in the 2021 LTERP and LT DSM Plan.[12]

12. FBC's 2023-2027 DSM Plan is also built up from the spending and savings targets of the LT DSM Plan. In the 2021 LTERP, FBC evaluated five different market potential DSM Scenarios (Low, Base, Medium, High, Maximum) based on varying the amount of incentive provided (i.e., the Low DSM Scenario had the lowest incentives, while the Maximum DSM Scenario had the highest incentives). In the 2021 LTERP, FBC selected the Base DSM as its preferred scenario for its LT DSM Plan, which contemplates total DSM expenditures between 2023 and 2027 of $63 million and total DSM savings of 139.8 GWh. The LT DSM Plan was premised on a ramp up in DSM spending and savings, beginning in 2021, that would offset an average of 32 percent of FBC's forecast load growth annually over the LTERP's planning horizon.[13] FBC's 2023-2027 DSM Plan is based on these spending and savings targets, and exceeds them for the reasons discussed below.

13. Further, consistent with the 2021 LTERP and LT DSM Plan, the DSM measures included in the 2023-2027 DSM Plan meet the adequacy requirements of the DSM Regulation. Meeting the adequacy requirements of the DSM Regulation is a requirement for the LTERP under section 44.1 of the *Utilities Commission Act*. FBC addresses how the 2023-2027 DSM Plan complies with each of the adequacy requirements of the DSM Regulation in Table 3-3 of the Application, which is reproduced below.

Table 3-3: DSM Plan Compliance with DSM Regulation[14]

DSM Regulation Adequacy	DSM Plan Compliance
a) a demand-side measure intended specifically i. to assist residents of low-income households to reduce their energy consumption, or ii. to reduce energy consumption in housing owned or operated by	The Low Income section of the DSM Plan (Appendix A, Section 6) shows plans for FBC to continue to offer programs that help low-income households and housing societies, including First Nations housing and co-operatives, save energy.

[12] Exhibit B-1, Application, p. 7.

[13] Exhibit B-1, Application, p. 5.

[14] Exhibit B-1, Application, pp. 8-9.

DSM Regulation Adequacy	DSM Plan Compliance
A. a housing provider that is a local government, a society as defined in section 1 of the Societies Act, other than a member-funded society as defined in section 190 of that Act, or an association as defined in section 1 (1) of the Cooperative Association Act, or B. the governing body of a first nation, if the benefits of the reduction primarily accrue to C. the low-income households occupying the housing, D. a housing provider referred to in clause (A), or E. a governing body referred to in clause (B) if the households in the governing body's housing are primarily low income households	
b) if the plan portfolio is submitted on or after June 1, 2009, a demand-side measure intended specifically to improve the energy efficiency of rental accommodations	FBC will be continuing to collaborate with FortisBC Energy Inc. (FEI) in the Rental Apartment Efficiency Program (RAP). As referenced in the Commercial section of the DSM Plan (Appendix A, Section 4), the RAP targets improving the energy efficiency only of rental apartment buildings.
c) an education program for students enrolled in schools in the public utility's service area d) if the plan portfolio is submitted on or after June 1, 2009, an education program for students enrolled in post-secondary institutions in the public utility's service area.	The Conservation Education and Outreach section of the DSM Plan (Appendix A, Section 7) includes continuation of the School Education Program which includes programming for grade schools and post-secondary institutions in FBC's service area.

DSM Regulation Adequacy	DSM Plan Compliance
e) one or more demand-side measures to provide resources as set out in paragraph i. of the definition of "specified demand-side measure", representing no less than ii. an average of 1% of the public utility's plan portfolio's expenditures per year over the portfolio's period of expenditures, or ii. an average of $2 million per year over the portfolio's period of expenditures	The Enabling Activities section of the DSM Plan includes Codes & Standards (Appendix A, Section 8), which forecasts an expenditure of $900 thousand. This equates to approximately 1.1% percent of the overall forecast portfolio spend over the DSM Plan period.
f) one or more demand-side 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.	BC Energy Step Code support is included within the following programs listed in the DSM Plan (Appendix A): • Residential New Home Program (Section 3) • Commercial Performance Program – New Buildings (Section 4) • Enabling Activities – Codes & Standards (Section 8) • Enabling Activities – Community Energy Specialist Program (section 8)

14. In summary, the 2023-2027 Expenditures Plan is built up from the same DSM potential and measures and targeted savings as the Base DSM Scenario in FBC's 2021 LTERP. This underscores the fundamental consistency between the two plans.

(b) 2023-2017 DSM Plan Exceeds LT DSM Plan Targets Due to Detailed Planning, including Results of Stakeholder Consultation and Newly Identified Demand and Capacity Saving Measures

15. In the Application and responses to IRs, FBC has reasonably explained the differences between the 2023-2027 DSM Plan and the LT DSM Plan. FBC set out these differences in the following table, which compares the LT DSM Plan with the 2023-2027 DSM Plan, including

variances due to program design and stakeholder feedback for measures that were considered in both the LT DSM Plan and 2023-2027 DSM Plan and additions that were not considered in the LT DSM Plan.[15]

Comparison of LT DSM Plan and 2023-2027 DSM Plan[16]

	Incentives ($M)	Non-Incentive Expenditures ($M)	Total Expenditures ($M)	Energy Savings (GWh/y)	Demand and Capacity Savings (MW)	TRC
DSM Expenditures Plan (2023-2027)	$49.1	$33.5	$82.6	143.4	62.1	1.3
LT DSM Plan (2023-2027)	$45.2	$18.1	$63.3	139.8	19.9	2.0
Difference	**$3.9**	**$15.4**	**$19.3**	**3.6**	**42.2**	**-0.7**

16. The reasons for the differences between the two plans are discussed below.

Detailed Program Design Is Key Difference Between Expenditure Plan and LT DSM Plan

17. The fundamental difference between the two plans is that the 2023-2027 DSM Plan reflects detailed program design. FBC explained as follows:[17]

> The LT DSM Plan does not explore the granularity of program design or budgeting at a program level like the 2023-2027 DSM Plan does. Customer participation (and hence expenditures and savings) in the LT DSM Plan is a direct outcome from the economic model and estimated by a simple payback demand curve reflecting cost, estimated operational savings, and DSM incentives. The model used does not account for other external factors that could influence participation including, such items as marketing, non-payback customer drivers, and supply chain availability. The LT DSM Plan also includes a flat assumption for non-incentive expenditures like labour, administration, communications, and the Conservation, Education, and Outreach (CEO), Innovative Technologies, Enabling Activities and Portfolio program areas.
>
> In contrast, the preparation of the 2023-2027 DSM Plan included detailed program design and stakeholder feedback and, thus, resulted in different expenditure assumptions from the LT DSM Plan and additional initiatives considered. This resulted in variation in each program area when compared to the LT DSM Plan. Even in the absence of additional initiatives not considered in the LT DSM Plan,

15 Exhibit B-2, BCUC IR1 3.1.

16 Exhibit B-2, BCUC IR1 3.1.

17 Exhibit B-2, BCUC IR1 3.1.

> FBC would still anticipate a difference between the LT DSM Plan modeling and the 2023-2027 DSM Plan due to the differing forecasting methodologies.[18]

18. As a result, one key difference between the 2021 LT DSM Plan and 2023-2027 DSM Plan is the assumed ratio of incentives to non-incentive expenditure. The LT DSM Plan assumes a 21 percent non-incentive expenditure ratio, while FBC experienced a non-incentive ratio of 39 percent and 35 percent in 2020 and 2021, respectively. Thus, FBC aligned the non-incentive expenditures in the 2023-2027 DSM Plan more closely with recent program experience and to reflect incremental initiatives included in the 2023-2027 DSM Plan.[19] Nonetheless, compared to the DSM program scenarios presented in the LT DSM plan, the total incentive cost as a percentage of incremental cost in the 2023-2027 DSM Plan is 57 percent, which is most similar to the Base scenario (average of 62 percent of incremental cost) of the LT DSM Plan.[20]

19. Further, the forecast savings from the proposed DSM Plan exceed the Market Potential outlined in the Base DSM Scenario due to newly anticipated activity in cannabis production facilities in FBC's service area.[21] The projected savings are the result of observed DSM activities from both existing FBC indoor agricultural customers (primarily cannabis) and also from newly constructed cannabis facilities.[22] This is consistent with stakeholder feedback to expand energy efficiency opportunities for existing and emerging industries (ex. cannabis production) in the Industrial program area.[23] This type of forecast savings based on recent customer activity, and in line with specific customer feedback, is not possible in the context of a LT DSM Plan, but is a refinement only done during detailed program planning.

FBC has Increased Expenditures in Response to Feedback from EECAG Stakeholders

20. As noted above, a part of detailed program design is FBC's in-depth consultation with stakeholders, including stakeholders in the Energy Efficiency and Conservation Advisory Group

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[18] Exhibit B-2, BCUC IR1 3.1.

[19] Exhibit B-2, BCUC IR1 3.1.

[20] Exhibit B-2, BCUC IR1 9.3.

[21] Exhibit B-1, Application, p. 19.

[22] Exhibit B-2, BCUC IR1 9.1.

[23] Exhibit B-1, Application, p. 14.

(EECAG). Based on feedback from EECAG stakeholders, FBC is proposing to increase expenditures in certain program areas compared to what was included in the LT DSM Plan. Specifically, FBC has:

- increased expenditures in the Low Income Program Area to support additional energy conservation projects in Indigenous communities.
- increased expenditures in the Innovative Technologies Program Area to support a small residential deep energy retrofit pilot in electrically heated homes in Indigenous communities.[24]

21. FBC submits that the addition of these expenditures is in the public interest.

FBC has Included Demand and Capacity Saving Measures not within Scope of the CPR

22. Another outcome of FBC's detailed planning is that FBC has increased expenditures in the Residential and Commercial Program Areas to support demand and capacity savings measures and to include a Demand Response Program Area, all of which were not included within the scope of the CPR and therefore not included in the LT DSM Plan.[25]

23. The need for demand and capacity savings measures is clear, as FBC is forecasting to experience additional demand pressure on its grid, as described in Section 2.3 of the 2021 LTERP. These increasing capacity impacts are due to emerging loads, most notably from EV charging. However, at the time the CPR was finalized, FBC had not yet determined whether demand and capacity saving DSM measures would be a cost-effective measure to address the capacity impacts. In parallel to the development of the CPR, FBC had begun a study of the value for demand and capacity DSM, which FBC completed in early 2022, several months after the completion of the 2021 CPR. This study results in a new Long-Run Marginal Cost of demand and capacity, which FBC reported on in response to BCUC IR1 38.1 in the 2021 LTERP regulatory proceeding. In its development of the 2023-2027 DSM Plan, FBC determined that both demand

[24] Exhibit B-1, Application, p. 6.

[25] Exhibit B-1, Application, pp. 6-7.

and capacity savings measures and the Demand Response Program Area were forecast to be cost-effective using the newly identified LRMC for measures with primarily demand- and capacity-only savings. Therefore, FBC included both the new demand and capacity savings measures in the Residential and Commercial Program Areas and the Demand Response Program Area as part of the 2023-2027 DSM Plan.[26]

24. The additional measures added to the Residential and Commercial Program Areas are as follows:[27]

- FBC's 2023-2027 DSM Plan includes new residential measures that have demand and capacity savings within the existing Home Renovation Program. Customers who install a high Season Energy Efficiency Ratio (SEER) air conditioner with an ENERGY STAR designation and enroll in the proposed Demand Response Program would be eligible for a Home Renovation Rebate incentive for the appliance and an on-going incentive for participation in the Demand Response program. FBC assumes that the participation will begin gradually and increase in later years of the 2023-2027 DSM Plan.

- The 2023-2027 DSM Plan includes new commercial measures that have demand and capacity savings within the existing Prescriptive Program. Customers who install roof top air conditioning units with a high Energy Efficiency Ratio (EER) would be eligible for a Prescriptive Program Rebate and an on-going incentive for participation in the Demand Response program. FBC assumes that the participation will begin gradually and increase in later years of the 2023-2027 DSM Plan.

25. FBC is also proposing a new Demand Response Program Area specifically focussed on demand response.[28] The Demand Response Program Area proposes to provide incentives for

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[26] Exhibit B-2, BCUC IR1 3.4.

[27] Exhibit B-2, BCUC IR1 3.3.

[28] Exhibit B-1, Application, pp. 6-7; Exhibit B-2, BCUC IR1 7.2.

participants to change when they use selected appliances or equipment. Interventions are done on existing customer equipment that is connected to FBC's demand response platform, including electric HVAC measures and EV charging. The program achieves demand savings by shifting participant loads outside of FBC's peak period, as well as outside the participants' monthly peak period in the case of customers on a rate schedule that includes demand charges.[29] FBC has forecast $6.0 million in expenditures on the Demand Response Program which is estimated to result in 30.6 MW of demand and capacity savings.[30]

26. The ability to shed load through demand response programs will both reduce FBC's need for additional transmission, distribution, and capacity resources, as well as improve reliability during future adverse weather events, such as the 2021 heat dome.[31] These additional measures are in line with stakeholder feedback and support the Demand Response transition from pilot to program and incentives for demand response measures such as residential air conditioning units.[32] FBC anticipates that both residential and commercial demand response programs will be permanent fixtures of FBC's DSM portfolio past 2027 and that cost-effectiveness will continue to improve as participation increases.[33]

Differences in Cost-Effectiveness Are Reasonably Explained

27. Finally, the cost-effectiveness of the 2023-2027 DSM Plan is lower than the LT DSM Plan because the incremental programs and measures in the 2023-2027 DSM Plan that were not reflected in the LT DSM Plan have minimal or no energy savings, but do have other benefits to customers such as demand and capacity savings.[34] More specifically, FBC explained:[35]

- The DSM Plan included additional expenditures in non-incentive program areas such as Conservation, Education and Outreach, Innovative Technologies, Enabling

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29 Exhibit B-2, BCUC IR1 3.5.

30 Exhibit B-2, BCUC IR1 3.1, Table 2, and BCUC IR1 7.1.

31 Exhibit B-2, BCUC IR1 8.2.

32 Exhibit B-1, Application, p. 1.

33 Exhibit B-2, BCUC IR1 8.2.

34 Exhibit B-2, BCUC IR1 3.1 and 3.2.

35 Exhibit B-2, BCUC IR1 10.3.

Activities and Portfolio. This includes an all-electric deep energy retrofit focused on Indigenous communities that was proposed by EECAG. These additional non-incentive expenditures were not reflected in the flat 21 percent non-incentive expenditure assumption of the 2021 CPR and is more in line with recent program experiences. This results in increased cost with no direct energy benefits, lowering the overall portfolio cost-benefit ratio.

- FBC has proposed including a demand response program area that was not evaluated in the 2021 CPR that has a lower estimated cost benefit ratio than the 2021 CPR average cost benefit ratio. Additional details regarding the cost-effectiveness of the demand response program area are included to the response to BCUC IR1 8.2.

- FBC has included additional expenditures to support Indigenous and low-income customers based on EECAG feedback. These additions have increased expenditures and savings, but the savings do not proportionally increase with expenditures, lowering the benefit-cost ratios.

- Detailed program design resulted in differing measure assumptions than the more generalized assumptions included in the CPR. This is particularly true for the residential and commercial program areas; specifically, those program areas include some lighting screw-in lamp measures that are being phased out due to newly changing efficiency standards. This resulted in lower savings in the residential and commercial program areas, lowering the benefit-cost ratios.

28. In summary, FBC submits that it has thoroughly explained the reasons for the differences between the 2023-2027 DSM Plan and the LT DSM Plan in the 2021 LTERP. FBC submits that the changes are consistent with feedback received from stakeholders and in the interest of customers as they will provide important benefits, such as demand and capacity savings.

C. 2023-2027 DSM Plan is Cost Effective Pursuant to the DSM Regulation

29. FBC's 2023-2027 DSM Plan is cost-effective, with a Total Resource Cost (TRC) test score of 1.3. FBC's approach to determining the cost-effectiveness of its DSM programs as described in the Application is comprehensive, aligned with the DSM Regulation, and consistent with past practice as previously approved by the BCUC.[36]

30. Specifically, under the DSM Regulation, the TRC is the governing cost-effectiveness test, which the BCUC has consistently applied at the portfolio level.[37] Table 5-1 of the Application, copied below, shows the standard cost-effectiveness test results at the portfolio level and demonstrates that the 2023-2027 DSM Plan is cost effective under the standard TRC test and also under the modified TRC (mTRC) test per the DSM Regulation, the Utilities Cost Test (UCT), and the Participant Cost Test (PCT). Although the 2023-2027 DSM Plan does not pass the Ratepayer Impact Measure (RIM) test, the BCUC may not determine that a proposed DSM measure is not cost effective based on the result of the RIM test.[38]

Table 5-1: Portfolio Level Cost Effectiveness Results[39]

	TRC	mTRC	UCT	PCT	RIM
Total Portfolio	1.3	1.4	1.8	3.2	0.5

31. FBC has provided individual program cost-effectiveness estimates in the 2023-2027 DSM Plan Report (Appendix A to the Application), and FBC will continue to report on individual DSM program cost-effectiveness results in its DSM Annual Reports. FBC notes that the TRC value for its Rental Apartment Program (or RAP) is lower in the 2023-2027 FBC DSM Plan compared to previous plans. This is due to:[40]

- Increased non-incentive costs, primarily due to increasing administration costs for planned program development activities for RAP, anticipation of a higher number

36 Exhibit B-1, Application, pp. 20-22.

37 Exhibit B-1, Application, pp. 20-21.

38 Demand Side Measures Regulation, Section 4 (6)

39 Exhibit B-1, Application, p. 22.

40 Exhibit B-3, RCIA IR1 4.1.

of energy assessments that do not convert to measure implementation, and anticipation of higher costs for the direct install component of RAP, which is labour-intensive;

- Conservative estimates for achievable electricity savings due to diminishing returns for opportunities associated with lighting upgrades; and
- Limited capacity to increase participation in FBC's RAP program between 2023-2027, since there are fewer market rental apartment buildings left in the region that have not already utilized the program.

32. While the cost-effectiveness of the Rental Apartment Program is decreasing, the Rental Apartment Program remains a necessary part of FBC's DSM plans as required by the adequacy requirements of the DSM Regulation, which requires "a demand-side measure intended specifically to improve the energy efficiency of rental accommodations".[41] FBC includes the Rental Apartment Program specifically for the purposes of meeting this requirement.[42] To continue to provide opportunities for tenants in apartment buildings to improve efficiency and reduce their electricity bills, and to meet the adequacy requirements of the DSM Regulation, FBC submits that continuation of the Rental Apartment Program is necessary and in the public interest.

D. 2023-2027 DSM Plan is in the Interests of Persons in BC who Receive or may Receive Service from FBC

33. FBC submits that its 2023-2027 DSM Plan is in the interests of persons in British Columbia who receive or may receive service from FBC.

34. First, as discussed above, the 2023 to 2027 DSM Plan is cost effective and will result in an estimated 143.4 GWh in energy savings and 62.1 MW of demand and capacity savings over that period.[43]

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[41] DSM Regulation, section 3(1)(b).

[42] Exhibit B-1, Application, Table 3-3, p. 8; Exhibit B-2, BCUC IR1 4.9.

[43] Exhibit B-1, Application, p. 1; Exhibit B-2, BCUC IR1 3.1.

35. Second, customers will directly benefit from FBC's 2023-2027 DSM Plan, due to energy and capacity savings which will reduce customer bills, as well as direct incentives to customers. The sum of the incentives and the net present value of customer electricity savings for each year of the 2023-2027 DSM Plan is presented in the table below.[44]

Customer Benefits[45]

	2023	2024	2025	2026	2027	Total
Total Customer Benefit for Participating Customers (in millions of $)	$49.1	$51.9	$54.9	$58.2	$62.8	**$276.8**

36. Third, based on FBC's in-depth consultation process, the 2023-2027 DSM Plan includes a fair representation of stakeholder and customer interests. A key input in FBC's development of the 2023-2027 DSM Plan was information gathered through consultation with various program stakeholders and interested parties. FBC engaged in and documented over 40 interactions and consultations related to the DSM Plan. The range of entities consulted with included: communities, customers, contractors, manufacturers, government, First Nations, vendors, interest groups, and EECAG. The forms of consultations included workshops, surveys, in-person interviews, webinars, and conference calls. FBC also provided confidential draft versions of its 2023-2027 DSM Plan to EECAG members for review and input.[46]

37. A consistent piece of feedback received from the consultations was general endorsement for how DSM is managed and operated by FBC and FEI. Satisfaction appeared to be high for FBC and FEI in this area and none of the consultations suggested that any significant change in approach was required.[47]

38. The key learning from these consultations was market data refinement, ideas for program design and how to expand programs and program reach. Directional feedback from the consultations included the following:[48]

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44 Exhibit B-7, CEC IR1 2.7.

45 Exhibit B-7, CEC IR1 2.7.

46 Exhibit B-1, Application, pp. 13-14.

47 Exhibit B-1, Application, p. 14.

48 Exhibit B-1, Application, p. 14.

- Increase in expenditures in the Low Income Program Area to support additional energy conservation projects in Indigenous communities;
- Support for Demand Response transition from pilot to program and incentives for demand response measures such as high-efficiency residential air conditioning units;
- Within the Innovative Technologies Program Areas strong feedback was received to support a residential deep energy retrofit pilot in electrically heated homes in Indigenous communities;
- Continue support and higher tier adoption of the BC Energy Step Code for new construction;
- Support deeper retrofits and building envelope support;
- Consider upstream incentives;
- Support pre-commercial technologies;
- Expand energy efficiency opportunities for existing and emerging industries (ex. cannabis production) in the Industrial program area;
- Pursue attribution for Codes and Standards; and
- Support Energy Advisors.

39. FBC took into account this feedback in the development of the DSM Plan. As a result, FBC submits that the DSM Plan includes a fair representation of stakeholder and customer interests.

40. Fourth, consistent with the above, fifteen diverse stakeholders have filed substantial letters of support for FBC's Expenditures Plan:[49]

- The Aboriginal Housing Management Association
- The British Columbia Hotel Association
- The City of Kelowna
- The City of Nelson and its municipal electric utility, Nelson Hydro

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[49] Exhibits E-1 to E-15.

- The City of Penticton
- The Regional District of Okanagan-Similkameen
- The Thompson Okanagan Tourism Association
- GreenStep Solutions
- Green Construction Research & Training Centre
- Canadian Association of Consulting Energy Advisors
- The Fraser Basin Council
- The Canadian Home Builders Association – Central Okanagan
- The BC First Nations Energy and Mining Council
- BC Non-Profit Housing Association
- City of Kamloops.

41. Each of the above entities has explained the basis of their support and how acceptance of FBC's 2023-2027 DSM Plan will help them achieve their goals. FBC submits that these letters demonstrate that there is wide and substantial support for the 2023-2027 DSM Plan.

42. FBC submits that its proposed 2023-2027 DSM Expenditures Plan is in the interests of customers and should be accepted as filed.

PART THREE: PROPOSED TRANSFER FUNDING RULES ARE REASONABLE AND WILL FACILITATE EFFECTIVE MANAGEMENT OF FBC'S DSM PORTFOLIO

43. FBC is requesting three changes to the existing funding transfer rules, as follows:

- For inter-program funding transfers, FBC is requesting that the BCUC remove the requirement for approval of transferred funds *into* a program area, and the requirement for approval of transfers above 25 percent *prior* to the expenditures being made.

- For carryovers within a Program Area to the following year, FBC is requesting that it be permitted to carryover unspent *and overspent* expenditures in a Program Area to the same Program Area in the following year.

- FBC is requesting an additional allowed percentage variance to the total portfolio expenditures in the final year of the DSM plan.

44. FBC addresses each of these proposals below.

(a) Flexibility for Inter-Program Funding Transfers

45. FBC is requesting changes to the rules for funding transfers amongst programs within a year to overcome some of the challenges of working within the transfer rules, while maintaining the necessary boundaries to ensure that the DSM portfolio still aligns with the approved portfolio deemed to be in the public interest. Specifically, FBC requests the following transfer rule:[50]

> *In cases where a proposed transfer out of an approved program area is greater than twenty five percent of that program area's accepted expenditures for the year in question, BCUC acceptance is required.*

46. The current inter-program funding rules were set out in BCUC Decision and Order G-47-19 as follows:[51]

> The Panel approves transfers of up to twenty five percent of accepted DSM expenditures from one existing program area to another existing program area without prior approval of the BCUC on the condition that FBC adds information regarding such transfers so that all amounts transferred from one existing program area to another existing program area are transparently accounted for in the DSM annual reports. In cases where a proposed transfer into or out of an approved program area is greater than twenty five percent of that program area's accepted expenditures for the year in question, prior BCUC approval is required.

[50] Exhibit B-1, Application, pp. 25-26.

[51] Order G-47-19, pp. 15-16

47. FBC's first proposed change and rationale is as follows:[52]

- **Remove the requirement for approval of transferred funds into a program area:** FBC is proposing that only the transfer of funds greater than 25 percent out of a program area should be required. This change ensures that the limits on the amount any one program area can lose funding are still in place, but eliminates the limits on how much one program area can gain. FBC submits that the greater concern in executing the portfolio is ensuring that no program area is reduced significantly to the benefit of another program area. FBC would still report on transfers into and out of program areas in its annual reporting to the BCUC.

48. FBC is seeking this change to allow for greater flexibility for FBC in responding to market changes that are difficult to forecast in advance, and to ensure that FBC can focus on delivering DSM programs to customers without interruption. During each year of the DSM Plan period, FBC spends significant time and resources determining strategies to manage increased expenditures due to higher customer demand in a program area given the current transfer rules. The proposed change to the funding transfer rules would simplify FBC's forecasting process and allow more focus on the delivery of programs to customers. FBC will only transfer funds out of a program area if those funds are not needed in that program area due to lower than forecast activity and those funds could be appropriately used in another program area in that year. The proposed change ensures that no program area will have its funding reduced by greater than 25 percent without BCUC approval. This ensures that FBC can react to and meet increased activity in a program area quickly and easily, while still ensuring that no other program area will have its funding reduced drastically as a result.[53]

49. FBC's second proposed change is as follows:

- **Remove the requirement of prior approval:** FBC will endeavor to file for approval as soon as it is aware that a transfer above 25 percent is required; however, often it is not known for certain that the 25 percent limit will be passed until it is about to occur or already occurring. Additionally, the exact amount of the transfer above 25 percent is difficult to forecast ahead of its

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52 Exhibit B-1, Application, pp. 25-26.

53 Exhibit B-2, BCUC IR1 15.1.

> occurrence, and time is also required to draft and submit an application to the BCUC.

50. As indicated above, the rationale for this proposed change is that it can be difficult to forecast with certainty when or if the 25 percent limit will be exceeded. This makes it challenging for FBC to apply for and receive approval of an increase in funding, without having to pause programs to the detriment of customer participation and savings potential. Under its proposal, FBC will still be required to file with the BCUC for acceptance of the transfer, but will be able to continue with its DSM programs, so that customers are not adversely impacted due to delays in receiving acceptance of the expenditures. This is consistent with section 44.2 of the *Utilities Commission Act*, which permits utilities to apply for expenditures that have already been spent (expenditures that the utility "has made or anticipates making"). FBC submits that this is reasonable as it will allow FBC to carry-out its planned DSM programs without disruption to customers, while still maintaining BCUC oversight over FBC's DSM expenditures.

(b) Symmetrical Inter-Year Funding Carryovers

51. FBC is also requesting to continue the funding carryover rules with the addition that FBC be permitted to carryover overspent (or negative amounts) into the following year. FBC's requested funding carryover rule is as follows:[54]

> *FBC is permitted to carryover unspent and overspent expenditures in a Program Area to the same Program Area in the following year.*

52. Under this rule, FBC would be permitted to carryover unspent and **overspent** expenditures in a Program Area to the same Program Area in the following year. In effect, FBC is requesting that the BCUC accept the total expenditures per Program Area over the time period of the expenditure schedule.[55]

53. In its Decision and Order G-301-21 on FEI's Application for Additional DSM Expenditures for 2021 to 2022, the BCUC Panel stated that it did not object to the negative carryover of funds

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[54] Exhibit B-1, Application, pp. 26-27.

[55] Exhibit B-1, Application, pp. 26-27.

to the extent that it supports rather than hinders FEI's ability to effectively carry out its current four-year DSM Plan within the existing overall spending envelope as approved by the BCUC.[56]

54. Consistent with the above ruling, FBC considers that carrying over negative amounts is consistent with the spirit and intent of its existing funding carryover rules. The ability to carryover funding amounts from one year to the next within the DSM funding period was applied for and approved to provide FBC with additional flexibility to manage the portfolio expenditures as it strives to meet the overall expenditure targets set out in the DSM Plan. Although the existing carryover rules focused on carrying over unspent amounts in the early years of the Plan to future years, the primary purpose of the carryover funding transfer request was to help FBC achieve the then- four-year total expenditures. Carrying forward negative amounts to future years of the plan will similarly help FBC to manage timing of expenditures and decrease the likelihood of underspending of the 2023-2027 DSM Plan. While spending may be higher than planned in one year, it may be lower than planned in the following year. Therefore, FBC considers that the funding carryover rules should include the flexibility to manage both positive and negative carry over amounts.[57]

(c) Total Portfolio Variance Allowance to Account for Reasonable Variances from Forecast

55. To account for reasonable variances from forecast, FBC is seeking approval of an allowed variance from the accepted DSM expenditure amount for the final year of the 2023-27 DSM Plan. Specifically, FBC is requesting the following variance allowance rule:[58]

> *FBC is permitted to exceed total approved DSM Portfolio expenditures before any carryover amounts in the final year of the DSM Plan by no more than five percent without prior approval from the BCUC.*

56. With this rule, FBC is proposing that in the final year of the 2023-27 DSM Plan (i.e., 2027 DSM expenditures), actual DSM expenditures for 2027 may only exceed 2027 approved DSM expenditures (excluding any carryover amounts from prior years) by no more than five percent

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[56] Order G-301-21, Appendix A, page 8.

[57] Exhibit B-1, Application, pp. 26-27.

[58] Exhibit B-1, Application, p. 27.

without prior approval from the BCUC. This means that in the final year of the Plan, FBC has additional flexibility to overspend 2027 approved expenditures by $935 thousand.[59]

57. The rationale for this proposal is that it is difficult for FBC to accurately forecast its DSM expenditures to the level of precision where FBC will spend exactly 100 percent of its DSM portfolio and no more or less. This is because actual DSM Plan expenditures are determined by many factors outside FBC's control, including changes in market conditions and customer responses to programs. Therefore, a variance allowance of five percent provides the necessary flexibility in the final year to respond to any conditions outside of FBC control that might require additional spending above approved.[60]

58. FBC derived its proposed five percent overspend figure from the average variance in forecasting that FBC and FEI have experienced over the past four years. (The forecasting of FEI is relevant as the same teams that forecast FEI expenditures also forecast FBC expenditures.) While the maximum forecasting variance for DSM programs has been 8 percent over the past four years, 5 percent is a reasonable average. FBC submits that the 5 percent overspend figure will allow FBC to continue to provide programs targeting 100 percent of plan expenditures, while reflecting reasonable challenges in forecast accuracy.[61]

59. Ultimately, the funding transfer and carryover rules, and the variance allowance will all serve to provide FBC with the flexibility to manage its DSM portfolio most effectively and carry out the accepted DSM plan. FBC therefore submits that its proposed changes are reasonable and should be approved.

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[59] Exhibit B-1, Application, p. 27.

[60] Exhibit B-1, Application, p. 27.

[61] Exhibit B-2, BCUC IR1 16.1.

PART FOUR: DEFERRAL ACCOUNT TO CAPTURE REGULATORY COSTS IS ACCEPTED REGULATORY PRACTICE

60. Consistent with past practice,[62] FBC is seeking approval of a rate base[63] deferral account to capture the regulatory costs associated with the review of this Application. FBC proposes to amortize the costs over five years starting in 2023 to match the time period that the DSM Plan will be in place.[64] It is accepted regulatory practice to defer the costs of regulatory applications for review and recovery following the regulatory review of the application itself. Consideration of the factors set out in the BCUC's checklist for regulatory accounts, as FBC has provided in response to BCUC IR1 17.3, supports approval of the regulatory account.[65]

PART FIVE: CONCLUSION

61. FBC submits that the BCUC should accept the 2023-2027 DSM Plan pursuant to section 44.2 the *Utilities Commission Act*, and approve FBC's proposed changes to the transfer funding rules and the deferral account to capture the costs of this regulatory proceeding. A Draft Order sought is included in Appendix C.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

Dated:	September 14, 2022	***[original signed by Chris Bystrom]***
		Christopher R. Bystrom
		Counsel for FortisBC Inc.

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62 Exhibit B-2, BCUC IR1 17.2.

63 Rate base deferral accounts are included in rate base and therefore, are implicitly financed using the weighted average cost of capital (WACC). If FBC had proposed a non-rate base deferral account, it would have requested the account be financed with a WACC return. Therefore, there would be no difference in the proposed carrying costs between a rate base and non-rate base deferral account. (Exhibit B-2, BCUC IR1 17.1.1.)

64 Exhibit B-1, Application, p. 27

65 Exhibit B-2, BCUC IR1 17.3.