



**ORDER NUMBER**

**G-31-24**

**IN THE MATTER OF**

the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Energy Inc.

2024-2027 Demand Side Management Expenditures Plan

**BEFORE:**

E. B. Lockhart, Panel Chair

C. M. Brewer, Commissioner

B. A. Magnan, Commissioner

on February 2, 2024

**ORDER**

**WHEREAS:**

- A. By letter dated June 15, 2023, FortisBC Energy Inc. (FEI) requested that the British Columbia Utilities Commission (BCUC) appoint a panel and issue a procedural order for the review of its upcoming Application for Acceptance of its Demand-Side Management (DSM) Expenditures Plan for the period covering 2024 to 2027;
- B. On July 12, 2023, FEI filed its Application for 2024-2027 Demand Side Management Expenditures Plan (Application) with the BCUC, pursuant to section 44.2(1)(a) of the *Utilities Commission Act*. FEI seeks acceptance of its proposed DSM expenditures of \$626.7 million for the period covering 2024 to 2027 (DSM Plan);
- C. FEI seeks the follow additional approvals:
  - 1. continuation of its existing funding transfer rules;
  - 2. a proposed change to the funding carryover rules to permit FEI to carryover both unspent and overspent expenditures in a program area to the same program area in the following year;
  - 3. continuation of the variance allowance rule providing for a variance of no more than five percent above the accepted amount for the final year of a DSM Plan without prior approval; and
  - 4. continuation of the previously approved forecast rate base additions accounting treatment;

- D. By Order G-178-23A, dated July 7, 2023, and as amended by Order-251-23 dated September 21, 2023, the BCUC established a regulatory timetable providing for intervenor registration, one round of information requests, and final and reply submissions;
- E. By July 20, 2023, the following registered as intervenors: BC Sustainable Energy Association; BC Old Age Pensioners' Organization et al.; The Commercial Energy Consumers Association of BC; Movement of United Professionals; and Residential Consumer Intervenor Association; and
- F. The BCUC has reviewed the evidence and submissions and finds the following determinations are warranted.

**NOW THEREFORE**, pursuant to section 44.2 of the UCA and for the reasons attached as Appendix A to this order, the BCUC orders as follows:

- 1. The FEI DSM expenditure schedule for the period of 2024 to 2027 as outlined in Table 1-1 of the Application is accepted.
- 2. FEI is directed to include the following information in DSM annual reports:
  - i. Expenditures associated with each pilot and deep retrofit project listed within the Innovation Technologies program area;
  - ii. For new measures that FEI transitions from the Innovative Technologies program area into main programs, the new measures' forecast of cost-effectiveness, energy savings, GHG emission reduction and participation; and
  - iii. For actual and forecast results on expenditures, energy savings, GHG emissions, participation and cost-effectiveness, a breakdown of results for those measures transitioned from the Innovative Technologies program area into main program areas.
- 3. The continuance of FEI's funding transfer rules as outlined in Section 3.1 of the Decision is approved.
- 4. FEI's request to carryover unspent and overspent expenditures in a Program Area to the same Program Area in the following year as set out in Section 3.1 of the Decision is approved.
- 5. FEI is permitted to exceed total accepted expenditures for the final year of the DSM expenditure schedule by no more than five percent of that year's forecast expenditures without prior BCUC approval.
- 6. FEI's proposal to continue to include the amount of \$60 million in its rate base DSM deferral account on a forecast basis over the 2024 to 2027 period is approved.

**DATED** at the City of Vancouver, in the Province of British Columbia, this 2<sup>nd</sup> day of February 2024.

BY ORDER

*Original signed by:*

E. B. Lockhart  
Commissioner

Attachment

## **FortisBC Energy Inc.**

### **2024-2027 Demand Side Management Expenditures Plan**

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#### **Reasons for Decision**

February 2, 2024

Before:

E. B. Lockhart, Panel Chair  
C. M. Brewer, Commissioner  
B. A. Magnan, Commissioner

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## Executive Summary

On July 12, 2023, FortisBC Energy Inc. (FEI) filed its Application for the 2024-2027 Demand Side Management (DSM) Expenditures Plan (Application) with the British Columbia Utilities Commission (BCUC), pursuant to section 44.2(1)(a) of the *Utilities Commission Act* (UCA). FEI seeks acceptance of its proposed DSM expenditures of \$626.7 million over the period from 2024 to 2027 (DSM Plan).

FEI also seeks continuation of its funding transfer rules and the variance allowance rule, and approval to carryover unspent and overspent expenditures in a program area to the same program area in the following year. Further, FEI proposes to continue the previously approved forecast rate base additions accounting treatment.

The BCUC established a written hearing process on July 7, 2023, for the review of the Application with one round of information requests (IRs), and final and reply arguments. Five interveners registered in the proceeding, and twenty-five letters in support of FEI's Application were received.

FEI developed the DSM Plan in accordance with the revised DSM Regulation, as amended on June 30, 2023. Having considered section 44.2 of the UCA, the Panel accepts the DSM Expenditure Schedule outlined in Table 1-1 of the Application. The Panel finds that the DSM Plan is consistent with the energy objectives set out in the *Clean Energy Act* and is cost-effective as set out in the amended DSM Regulation. The Panel also finds that the DSM Plan is in the interests of FEI's customers as it will create annual gas savings, accelerate market transformation, and reduce greenhouse gas (GHG) emissions through offering incentives for DSM measures.

The Panel accepts that FEI developed the 2022 Long Term Gas Resource Plan (LTGRP) to comply with the previous DSM Regulation, and therefore the most recently filed 2022 LTGRP is less relevant than in prior DSM plan proceedings. Nevertheless, the Panel finds that the DSM Plan is generally aligned with FEI's approach to DSM in the 2022 LTGRP because it continues to be a cost-effective portfolio that includes many of the initiatives presented in the 2022 LTGRP and reflects a consistent level of expenditures when compared to prior years.

Noting the large increase in funding for Innovative Technology since 2018 the Panel considers that additional annual reporting is warranted, and directs FEI to include the following information in the DSM annual reports:

- Expenditures associated with each pilot and deep retrofit project listed within the Innovation Technologies program area;
- For new measures that FEI transitions from the Innovative Technologies program area into main programs, the new measures' forecast of cost-effectiveness, energy savings, GHG emission reduction and participation; and
- For actual and forecast results on expenditures, energy savings, GHG emissions, participation and cost-effectiveness, a breakdown of results for those measures transitioned from the Innovative Technologies program area into main program areas.

The Panel approves FEI's requested change to the carry-over funding rules, to allow the carryover of both unspent and overspent expenditures in a Program Area to the same Program Area in the following year. The Panel also approves the continuances of FEI transfer and variance rules, and FEI's proposal to continue to include the amount of \$60 million in its rate base DSM deferral account on a forecast basis over the 2024 to 2027 period.

## 1.0 Introduction

### 1.1 Background and Purpose of the Application

On July 12, 2023, FortisBC Energy Inc. (FEI) filed its Application for the 2024-2027 Demand Side Management (DSM) Expenditures Plan (Application) with the British Columbia Utilities Commission (BCUC), pursuant to section 44.2(1)(a) of the *Utilities Commission Act* (UCA). FEI's proposed DSM expenditure schedule outlines the expenditures on DSM, which total \$626.7 million, that FEI anticipates making during the period from 2024 to 2027 (DSM Plan).

FEI's Application includes FEI's 2024-2027 DSM Expenditure Plan Report in Appendix A to the Application, which provides details on each of FEI's DSM program areas and individual programs and associated cost-effectiveness test results.

FEI is also seeking approval of the following:

- continuation of the funding transfer rules;
- a change to the funding carryover rules to permit FEI to carryover unspent and overspent expenditures in a program area to the following year;
- continuation of the variance allowance rule on total portfolio expenditures, and
- continuation of the forecast rate base additions accounting treatment.<sup>1</sup>

### 1.2 Legislative and Regulatory Context

After a public utility files an expenditure schedule under section 44.2(1)(a) of the UCA, the BCUC is required to either accept the schedule, if it considers that making the expenditures would be in the public interest, or reject the schedule, in whole or part.<sup>2</sup>

In considering whether to accept or reject the expenditure schedule, subsection 44.2(5) sets out what the BCUC must consider, as follows:

- (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

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<sup>1</sup> Exhibit B-2, p. 8.

<sup>2</sup> UCA section 44.2(3) and (4).

(e) the interests of persons in British Columbia who receive or may receive service from the public utility.

BC's energy objectives are outlined in section 2 of the *Clean Energy Act* (CEA).

Section 44.2(5)(c) of the UCA is not relevant to this Application because it relates to sections 6 and 19 of the CEA. Section 6 of the CEA (electricity self-sufficiency) applies only to British Columbia Hydro and Power Authority (BC Hydro) or to applications made by public utilities under section 44.1 of the UCA, neither of which is the case here. Section 19 of the CEA does not apply because no regulations have been passed under section 37 (h) of the CEA prescribing public utilities for the purposes of section 19.

The Demand-Side Measures Regulation<sup>3</sup> (DSM Regulation), which defines cost effective DSM for the purposes of section 44.2(5)(d) of the UCA, was amended on June 30, 2023.<sup>4</sup> The amendments include changes to the types of DSM which can be offered by utilities, in particular the removal of incentives for natural gas space and water heating equipment with performance below a certain threshold, with some exceptions for low income and Indigenous customers and certain industrial settings. The DSM Regulation provides for incentives to support gas heat pump and dual fuel hybrid heat pump systems and deep retrofits.

FEI's new incentive measures for advanced DSM, which includes measures such as heat pumps and deep retrofits (Advanced DSM), are discussed in Section 2.1 of this Decision. The main test of cost-effectiveness has been changed from the Total Resource Cost to the Utility Cost Test (UCT), with the avoided cost of gas pegged to the same value as the renewable and low carbon gas price cap, as set out in the *Greenhouse Gas Reduction (Clean Energy) Regulation*. Cost-effectiveness is discussed in more detail in Section 2.4.

Section 44.2(6) addresses expenditures that were determined to be in the public interest under a long-term resource plan filed under section 44.1; no such determinations have been made that apply to this Application.

### 1.3 Regulatory Process

On June 15, 2023, FEI requested that the BCUC appoint a panel and issue a procedural order for the review of its upcoming Application, while waiting for the issuance of the amended DSM Regulation. By Order G-178-23A, dated July 7, 2023, and as amended by Order-251-23 dated September 21, 2023, the BCUC established a written hearing process for its review of the Application with one round of information requests (IRs), and final and reply arguments.

Following the issuance of the amended DSM Regulation on June 30, 2023, FEI filed its DSM Plan on July 12, 2023.

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<sup>3</sup> B.C. Reg. 326/2008 — Demand-Side Measures Regulation.

<sup>4</sup> Exhibit A2-1.

The following registered as interveners in this proceeding:

- BC Sustainable Energy Association (BCSEA);
- BC Old Age Pensioners' Organization et al. (BCOAPO);
- The Commercial Energy Consumers Association of BC (The CEC);
- Movement of United Professionals (MoveUp); and
- Residential Consumer Intervener Association (RCIA).

Twenty-five organizations submitted letters of comment, all in support of FEI's Application.<sup>5</sup>

## **1.4 Structure of the Decision**

In Section 2, the Panel reviews FEI's request for acceptance of the DSM Plan by addressing each of the considerations listed in subsection 44.2(5) of the UCA.

In Section 3, the Panel addresses the items for which FEI seeks approval related to its funding transfer rules, and the accounting treatment of forecast rate base additions.

## **2.0 Consideration of FEI's 2024-2027 DSM Plan**

In this section, the Panel provides an overview of the DSM Plan, where we examine the particulars of the proposed expenditures as detailed in the Application and the impact of the changes to the DSM Regulation. A specific issue arising during the Panel's review of the Application relates to the Innovative Technologies program, which we discuss in greater detail after the overview.

In order to determine whether to accept FEI's DSM Plan as being in the public interest, the Panel then considers, in sections 2.2 to 2.5, BC's energy objectives, FEI's most recently filed long-term resource plan, the cost-effectiveness of the DSM Plan, and the interests of persons who receive service from FEI.

### **2.1 Overview of the 2024-2027 Expenditure Schedule**

FEI proposes DSM expenditures in the following program areas: Residential, Commercial, Industrial, Low Income, Indigenous, Conservation Education and Outreach, Innovative Technologies, Enabling Activities, Legacy Expenditures, and Portfolio Activities.<sup>6</sup>

FEI notes this is the first DSM Plan it has filed under the amended DSM Regulation and describes two significant changes in comparison to its 2023 DSM Plan, both of which reflect the goals of the provincial government's 2021 CleanBC Roadmap to 2030 (Roadmap). First, the amended DSM Regulation phases out support for conventional gas space and water heating equipment with efficiencies less than 100 percent. No new incentives may be offered for these measures (referred to as Class B in the amended DSM Regulation), with some exclusions for

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<sup>5</sup> See Exhibits D-1 to D-25.

<sup>6</sup> Exhibit B-2, p. 12.



low-income households and Indigenous communities. Second, the DSM Regulation increases support for what FEI refers to in the Application as Advanced DSM measures, including requiring the BCUC to make determinations of cost-effectiveness using the Utility Cost Test (UCT) with an avoided natural gas cost of \$34.07 per gigajoule (GJ) in 2023/2024 with subsequent increases for inflation.<sup>7</sup> FEI notes this is consistent with the maximum cost of renewable and low carbon gas as specified in the *Greenhouse Gas Reduction (Clean Energy) Regulation*.<sup>8</sup>

FEI states that a key driver of the expenditure levels outlined in the DSM Plan is the amount of support necessary to accelerate the adoption of Advanced DSM measures, such as heat pumps and deep retrofits, that currently have low rates of market adoption. The incentive levels proposed for Advanced DSM measures cover a higher percentage of a project's overall and incremental cost when compared to FEI's past support for conventional gas space and water heating equipment, such as furnaces and boilers. FEI proposes higher incentive levels for Advanced DSM measures to encourage early adoption and increase participation to drive market transformation and increase accessibility.<sup>9</sup>

FEI notes that the DSM Plan includes two new program areas, Indigenous and Legacy Expenditures, because of amendments to the adequacy requirements in the DSM Regulation.<sup>10</sup> The Indigenous program area brings all Indigenous DSM expenditures together in one program area. The Legacy Expenditures program area includes expenditures for conventional high-efficiency gas space and water heating equipment that are now classified as Class B DSM, but were commitments made under previously approved DSM Plans, including the 2023 DSM Plan. These legacy expenditures support commitments made to customers in residential, commercial and low-income sectors, as well as Indigenous communities for purchases of eligible high-efficiency gas equipment prior to 2024. Most legacy expenditures will occur by the end of 2027, with some limited legacy expenditures in 2028 under the Performance Program - New Buildings.<sup>11</sup>

FEI's proposed DSM expenditure schedule for the 2024 to 2027 period is set out in Table 1 below. The table also provides a comparison to the forecast expenditures for 2023.

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<sup>7</sup> Exhibit B-2, p. 34.

<sup>8</sup> Ibid., p. 3.

<sup>9</sup> Ibid., p. 15.

<sup>10</sup> DSM Regulation, s. 5.

<sup>11</sup> FEI Final Argument, p. 2; Exhibit B-3, BCUC IR 10.3 and 10.4. The terms and conditions of the program allow projects to complete up to 5 years after initial commitment, aligning with common construction schedules. Therefore, customers who applied to the program in 2023 have until 2028 to complete their project and apply for an incentive. No other programs have legacy expenditures after 2027.

**Table 1: FEI DSM Expenditures – 2024-2027 Forecast (\$000's, including inflation)<sup>12</sup>**

Program Area	Total Utility Expenditure (000s) <sup>1</sup>					
	2023	2024	2025	2026	2027	2024 - 2027 Total
Residential	\$43,994	\$33,197	\$40,830	\$48,263	\$56,621	\$178,910
Commercial	\$26,570	\$8,726	\$12,958	\$17,799	\$21,151	\$60,635
Industrial	\$6,848	\$7,585	\$8,071	\$8,963	\$9,600	\$34,219
Low Income	\$13,251	\$8,366	\$9,753	\$11,826	\$14,676	\$44,621
Indigenous	-	\$2,704	\$4,247	\$5,481	\$6,452	\$18,885
Conservation Education and Outreach	\$9,713	\$14,652	\$14,794	\$15,433	\$15,986	\$60,865
Innovative Technologies	\$25,960	\$35,117	\$20,807	\$15,239	\$18,059	\$89,222
Enabling Activities	\$12,010	\$15,042	\$12,451	\$11,486	\$11,265	\$50,244
Portfolio Activities	\$2,730	\$5,281	\$5,687	\$5,507	\$5,749	\$22,223
Legacy Expenditures <sup>2</sup>	-	\$36,200	\$16,995	\$8,401	\$5,282	\$68,878
<b>All Programs</b>	<b>\$141,077</b>	<b>\$166,870</b>	<b>\$146,593</b>	<b>\$148,398</b>	<b>\$164,842</b>	<b>\$626,703</b>
Year-over-year variance	0	18%	-12%	1%	11%	

FEI's forecast gas savings for 2024-2027, compared to the forecast 2023 DSM Plan savings, are shown in Table 2 below. FEI forecasts a 46 percent decrease in gas savings in 2024 compared to 2023, due to discontinued incentives for conventional high-efficiency gas space and water heating equipment. Further, while an individual Advanced DSM project may save a customer more energy (e.g., dual fuel hybrids save more gas than a conventional gas furnace), the lower customer participation forecast (i.e., adoption rate) reduces the overall portfolio energy savings that FEI is able to achieve. FEI forecasts that savings will increase from 2024 to 2027, ultimately reaching levels closer to previous DSM plans, as Industrial energy efficiency continues to grow and forecast participation in Advanced DSM increases. FEI expects energy savings to continue to grow in future DSM Plan periods as the new Advanced DSM measures become more market mature.<sup>13</sup>

FEI does not forecast gas savings in several program areas. FEI explains that Enabling and Portfolio Activities Programs provide support for the other programs in the DSM portfolio, and do not have energy savings directly associated with them.<sup>14</sup> In addition, FEI explains that it is challenging to forecast energy savings from the Innovative Technologies program area because the related pilot studies are preliminary and investigative, although it will report energy savings in DSM annual reports if it has sufficient data.<sup>15</sup>

<sup>12</sup> Exhibit B-2, Table 4-2, p. 14.

<sup>13</sup> Ibid., p. 16.

<sup>14</sup> Ibid., Appendix A, pp. 11, 37, 41.

<sup>15</sup> Ibid., Appendix A, p. 32.

**Table 2: FEI DSM Savings in GJ – 2024-2027 Forecast compared to the 2023 DSM Plan Savings<sup>16</sup>**

Program Area	2023	Utility Incremental Savings (GJ/Year) <sup>1</sup>				2024-2027 Total
		2024	2025	2026	2027	
Residential	250,319	166,655	187,759	208,552	232,596	795,562
Commercial	563,816	93,986	138,321	185,927	222,140	640,373
Industrial	628,423	365,533	394,550	473,459	516,985	1,750,526
Low Income	77,408	50,684	56,992	64,579	75,588	247,843
Indigenous		16,076	22,237	27,421	29,225	94,959
Conservation Education and Outreach <sup>2</sup>	81,420	20,000	30,000	30,000	30,000	110,000
Innovative Technologies	-	-	-	-	-	-
Enabling Activities	-	-	-	-	-	-
Portfolio Activities	-	-	-	-	-	-
Legacy Expenditures <sup>3</sup>	-	147,185	57,878	31,361	21,340	257,765
<b>ALL Programs</b>	<b>1,601,386</b>	<b>860,119</b>	<b>887,737</b>	<b>1,021,299</b>	<b>1,127,874</b>	<b>3,897,028</b>
Year over year variance	0	-46%	3%	15%	10%	

*Notes to Table:*

- 1 Totals may slightly differ due to rounding, accepted 2023 savings are pursuant to Order G-45-23.
- 2 These projected energy savings start in 2024 and are applicable only to the Customer Engagement Tool and the portfolio overall. All other energy savings from the Conservation Education and Outreach Program area are not estimated.
- 3 Indigenous and Legacy Expenditures are new program areas not included in the 2023 DSM Plan based on the amended DSM Regulation.

As noted above, during its review of the Application, the Panel identified issues with the Innovative Technologies program area, in part because of the significant increase in forecast expenditures. We discuss these issues in the next section.

### 2.1.1 Innovative Technology as defined by the DSM Regulation

In this section the Panel outlines its concern with FEI's plan to include expenditures in the Innovative Technologies program area for research into embodied carbon.

Section 1 of the DSM Regulation states in part that "technology innovation program" means a program:

- (a) to develop, use or support the increased use of a technology, a system of technologies, a building design or an industrial facility design that is

<sup>16</sup> Exhibit B-2, Table 4-3, p. 15.

- (i) not commonly used in British Columbia, and
- (ii) the use of which could directly or indirectly result in significant reductions of energy use or significantly more efficient use of energy.

Under FEI's DSM Plan the Innovative Technologies program area "continues support for pilots, including for residential and commercial deep energy retrofits, residential and commercial dual fuel hybrid heating, and residential and commercial heat pumps."<sup>17</sup> The total forecast expenditures for the Innovative Technologies program area amount to \$88.2 million<sup>18</sup> over the four-year period, allocated as follows:<sup>19</sup>

- Technology screening: \$3.2 million;
- Pilots: \$24.8 million;
- Deep Energy Retrofits: \$50.6 million; and
- Labour & non-program specific expenses: \$9.6 million.

FEI explains that the "Deep Retrofits activities aim to both assess and evaluate energy efficiency technologies, a system of technologies, and or building designs that can reduce GHG emissions by 50% or greater in both residential and commercial buildings." FEI provides information on the activities in the Innovative Technologies program area, including potential technologies to be evaluated over the 2024-2027 period. One of these is embodied carbon, part of the Deep Retrofits core activity area, "a relatively newer consideration for lowering energy use and its associated GHG emissions in new and existing buildings."<sup>20</sup> When asked in IRs how the concept of embodied carbon results in a reduction of gas consumption, FEI responded:<sup>21</sup>

The primary goal of a deep energy retrofit project is to drive energy efficiency, reduce gas consumption, and reduce GHG emissions through upgrading the building envelope (including windows and insulation) and mechanical systems. To this end, each upgrade measure of a deep energy retrofit project reduces natural gas consumption. However, each upgrade measure also has an associated embodied carbon value, which is the carbon emitted during all other stages of that measure's life, including raw material extraction and processing, transportation and construction, maintenance and operations, and demolition and disposal. For example, according to a study completed by RDH (an engineering consultancy agency specializing in building envelope retrofits), vinyl frames for windows have higher embodied emissions than fiberglass framed windows, while both result in nearly similar energy savings. As it is important to understand these other impacts of the upgrades being installed, FEI intends to conduct further research to better assess the linkage between embodied carbon and different deep energy retrofit bundled energy upgrade solutions. [Emphasis added]

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<sup>17</sup> Exhibit B-2, p. 17.

<sup>18</sup> This total and breakdown is drawn from Appendix A, Exhibit 17, which excludes inflation. This results in a slight difference from the figures shown in Table 1 above.

<sup>19</sup> Exhibit B-2, Appendix A; Exhibit 17, p. 34.

<sup>20</sup> Exhibit B-2, Appendix A; Exhibit 18, p. 36.

<sup>21</sup> Exhibit B-3, BCUC IR 5.7.

### *Panel Determination*

The Panel notes that not all of the activities under FEI's innovative technologies program area meet the criteria as defined in the DSM Regulation. The Panel is not convinced that FEI's research about embodied carbon qualifies as an innovative technology program within the meaning of the DSM Regulation. Specifically, the DSM Regulation requires that an innovative technology program "develop, use or support the increased use of a technology, a system of technologies, a building design or an industrial facility design that is:

- (i) not commonly used in British Columbia, and
- (ii) the use of which could directly or indirectly result in significant reductions of energy use or significantly more efficient use of energy."

Based on the evidence provided, we question whether embodied carbon meets this definition and therefore we are not persuaded this is a qualifying program. Based on FEI's evidence cited above, embodied carbon compares the associated embodied carbon value of measures which result in nearly similar energy savings. Embodied carbon does not appear to contemplate a building or industrial facility design that is not commonly used in BC or that could result in significant reductions of energy use or significantly more efficient use of energy.

The Panel acknowledges that DSM measures are important elements in the reduction of GHG emissions, however, we are concerned about the magnitude and scope of funding which ratepayers are being asked to subsidize under the ambit of DSM. The Panel notes that FEI does not break down expenditures in the Innovative Technologies program area to the technology level. The Panel accepts FEI's proposed expenditures in the Innovative Technologies program area, on the condition that FEI will only use such expenditures to fund innovative technologies as defined in the DSM Regulation, which, in the Panel's view, does not currently include embodied carbon. **The Panel directs FEI to include in the Annual DSM Report the expenditures associated with each pilot and deep retrofit project listed within the Innovation Technologies program area.**

#### **2.1.2 Process to move Advanced DSM from Innovative Technologies to Customer Programs**

An issue arising in the proceeding was how DSM programs may transition from pilot in the Innovative Technologies program area to other program areas during the period covered by the DSM Plan. Accordingly, the Panel asked parties to address the following question in final arguments: "In circumstances where FEI wishes to move pilot DSM measures from the Innovative Technologies Program Area into a program that has expenditures and defined cost-effectiveness requirements, whether any regulatory or other process would be required."<sup>22</sup>

The DSM Plan forecasts expenditures of \$35 million in 2024 (\$89 million total for 2024 to 2027) for Innovative Technologies, which FEI describes as a program area that "evaluates both pre-commercial and commercially available technologies and conducts pilot studies to validate manufacturers' claims related to equipment and system performance. The program area also assesses actual savings and customer acceptance of these newer technologies or systems of technologies." FEI notes that technologies that successfully emerge from the

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<sup>22</sup> Exhibit A-4, p. 1.

Innovative Technologies program area are considered for inclusion within the applicable sector programs within the larger DSM portfolio.<sup>23</sup>

While total DSM plan expenditures have increased almost five-fold since 2018 (from \$36 million to \$166 million in 2024), expenditures on Innovative Technologies have increased almost 30-fold over the same period (from \$1.2 million in 2018, rising to \$5 million in 2021, \$25million in 2023, and now \$35 million in 2024).<sup>24</sup> The increase in expenditures on Innovative Technologies since 2023 is FEI's response to the Roadmap policy changes. In FEI's 2023 DSM Expenditure Schedule proceeding, FEI indicated it had a five-year vision for the period 2023-2027. The five-year DSM vision, in alignment with the Roadmap, required significant investment in the newer Advanced DSM areas and much of the increase in expenditures fell within the Innovative Technologies program area to allow the investigation and testing of newer Advanced DSM technologies.<sup>25</sup>

FEI explains that the Residential, Commercial, Industrial, Low Income and Indigenous program areas include forecast expenditures for measures that are being tested in the Innovative Technology program area. As an example, FEI notes that it plans for expenditures to increase over the plan period, with substantial expenditures in dual fuel hybrid system offers across residential programs, and that it will use findings and recommendations from the hybrid heating early adopter offer pilot under the Innovative Technologies program area to support this transition.<sup>26</sup> The Innovative Technologies program area supports pilot projects, including for residential and commercial deep energy retrofits, dual fuel hybrid heating and heat pumps.<sup>27</sup>

FEI developed the Innovative Technology Selection & Implementation Process to identify new measures for inclusion in FEI's DSM programs, as illustrated in Figure 1 below.<sup>28</sup> FEI's internal process follows a series of decision points and pre-defined criteria to validate a technology's potential, such as: that program cost-effectiveness inputs are understood, that it is commercially available and can be implemented in FEI's service territory, and that the program can be reasonably evaluated.<sup>29</sup>

FEI states that it will only move pilot DSM measures from the Innovative Technologies program area into a permanent program if the results of the pilot are successful, and the program is forecast to be cost-effective and achieve reasonable market adoption.<sup>30</sup> FEI confirms that it is not seeking BCUC approval to move measures from the Innovative Technology program area into other program areas.<sup>31</sup>

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Exhibit B-2, Appendix A, p. 32.

<sup>24</sup> BCUC Staff calculations derived from Exhibit B-4, CEC IR 1.1

<sup>25</sup> FortisBC Energy Inc. Acceptance of Demand-Side Management Expenditures Plan for 2023 Decision and Order G-45-23 dated March 6, 2023, pp. 4-5.

<sup>26</sup> Exhibit B-3, BCUC IR1 1.5.

<sup>27</sup> Exhibit B-2, p. 17.

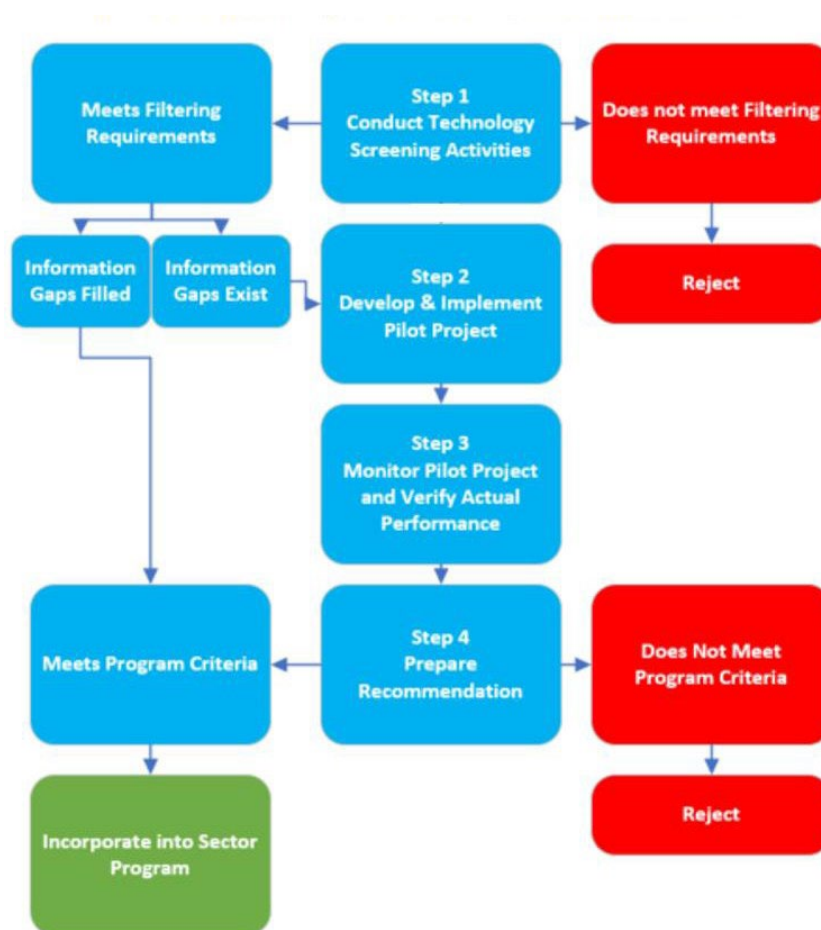
<sup>28</sup> Exhibit B-3, BCUC IR1 1.4.

<sup>29</sup> Ibid.

<sup>30</sup> FEI Reply Argument, p. 9.

<sup>31</sup> Exhibit B-3, BCUC IR 1.5

Figure 1: Innovative Technology Selection & Implementation Process Diagram



### *Positions of the Parties*

BCSEA considers FEI’s “Innovative Technology Selection & Implementation Process” is reasonable and agrees with FEI that no regulatory or other process is required where FEI wishes to move pilot DSM measures from the Innovative Technologies program area into a program that has expenditures and defined cost-effectiveness requirements.<sup>32</sup>

The CEC submits that moving from innovation incubation to full program is a journey of many steps and that there will be appropriate, but different, treatment at each of the major steps of the development. The CEC expects that programs with nascent DSM Plan development might have very different criteria for “cost-effectiveness” requirements. The CEC recommends that the BCUC direct FEI to develop the progression path for innovations from incubation to full program implementation and the appropriate regulatory evaluations to be applied along the path. The CEC recommends that the BCUC ask FEI to implement its work on such a path and present it at an appropriate next Annual Review for approval by the BCUC and for adoption into the ongoing

<sup>32</sup> BCSEA Final Argument, pp. 3-4.



DSM planning. The CEC recommends that the BCUC direct FEI to have this process fully developed, integrated and implemented in the 2028 to 2032 DSM Plan.<sup>33</sup>

In reply to the CEC, FEI states that it has already developed a robust pathway for piloting innovative technologies through the Innovative Technology Selection & Implementation Process and that the CEC has not established the need for an additional ‘progression path’.<sup>34</sup>

BCOAPO notes that, at the conceptual level, it does not oppose the transition of a pilot DSM program to a permanent program where the DSM program is determined to be cost effective. It does, however, have reservations about approving a four-year DSM Plan whose premise is a “business-as-usual/steady state operating environment which is clearly no longer relevant for natural gas utilities.” BCOAPO therefore recommends that the BCUC approve the DSM Plan for two years and on that limited basis, is satisfied that the uncertainty and risk associated with transitioning a pilot DSM program to a permanent program is reasonably contained.<sup>35</sup>

In reply to BCOAPO, FEI submits that a shorter time DSM Plan would not be in the public interest because customers and the market need a consistent and assured level of funding over the 2024-2027 period to build confidence in the support for Advanced DSM and so that FEI can begin to transform the market through its DSM programming. FEI also notes that if it needs to adjust the DSM Plan over the 2024-2027 period, it can submit an amended DSM expenditure schedule for the BCUC’s review.<sup>36</sup>

RCIA notes that the proposed Advanced DSM measures are very expensive; the cost-benefit ratio is much worse than for conventional DSM. Incentives for DSM have historically been used to spur market adoption of new technologies, but the desire to spur market adoption of new technologies has generally not been divorced from a dispassionate cost-benefit analysis of the measures. It submits that encouraging market adoption is justified so long as cost effectiveness and ratepayer impacts are considered. Therefore, RCIA recommends a pause on some Advanced DSM measures until those measures have demonstrated their cost effectiveness.<sup>37</sup>

RCIA questions whether FEI adheres to its commitment to transition pilot DSM measures into sector programs if the pilot is successful and the program into which the pilot measure is moved is cost effective and submits that FEI appears to aggressively pursue certain Advanced DSM measures even though pilot programs and the subsequent evaluations are incomplete.<sup>38</sup>

To illustrate its point, RCIA references the residential hybrid heating system pilot project. Although FEI does not expect to complete its evaluation of the pilot project until the second quarter of 2024, and therefore cannot yet conclude that the pilot project is cost-effective, FEI nevertheless forecasts 2,185 residential hybrid heating

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<sup>33</sup> CEC Final Argument, p. 6.

<sup>34</sup> FEI Reply Argument, p. 11.

<sup>35</sup> BCOAPO Final Argument, pp. 4-5.

<sup>36</sup> FEI Reply Argument, p. 8.

<sup>37</sup> RCIA Final Argument, pp. 7-8.

<sup>38</sup> Ibid., p. 10.



system installations under the Residential Home Renovation and New Home programs. RCIA states that by transitioning a pilot program into the Residential sector program before establishing cost-effectiveness, FEI is not following its Innovative Technology Selection & Implementation Process. According to step 4 of that process, the measure would only be incorporated into a Sector Program if it meets program criteria. RCIA recommends that expenditures related to the residential hybrid system measures should be conditional upon FEI demonstrating that these measures pass the cost-effectiveness test.<sup>39</sup>

In reply, FEI submits that RCIA's recommendations should be rejected because they are "inefficient from a regulatory perspective and will delay cost-effective Advanced DSM programs that are supported by government policy, as reflected in the DSM Regulation." Further, FEI submits that given its proven track record of implementing programs that meet the DSM Regulation's cost-effective requirement, and its Annual Reports, RCIA's recommendations are redundant and inefficient and should be rejected. Finally, FEI notes that it would include additional information in its DSM annual reports that the BCUC may require regarding the results of pilot projects in support of measures that move to a permanent program.<sup>40</sup>

### *Panel Determination*

The Panel is satisfied that FEI has outlined an appropriate process to move measures from the Innovative Technology program area into other program areas. Further, we are persuaded that FEI does not require BCUC approval for such moves. There is no regulatory requirement under the DSM Regulation or the UCA, and nor is there evidence that such approval has previously been sought by FEI or suggested by the BCUC. Therefore, introducing such a requirement now would be novel, and interveners' submissions have not persuaded us of the necessity.

FEI has outlined a comprehensive process for technology evaluation to support pilot programs that test the effectiveness and value proposition of Advanced DSM as ways to reduce emissions and energy use. FEI files annual DSM reports with the BCUC, which provide a line of sight into FEI's implementation of its DSM programs.

While we accept the CEC's observation that innovation in the DSM space will have many steps and different criteria for cost-effectiveness, FEI has a verification process in place which we consider to be sufficiently robust. Therefore, we do not accept that there is value in directing FEI to develop the progression path for innovations from incubation to full program implementation and the appropriate regulatory evaluations to be applied along the path.

We do not agree with BCOAPO's recommendation that we approve a shorter DSM Plan to contain the risk and uncertainty associated with transitioning a pilot DSM program into a permanent program. We are satisfied that FEI's internal processes provide adequate assurance that it will not move measures from the Innovative Technologies program area into a permanent program unless the results of the pilot are successful, the program is forecast to be cost-effective and achieve reasonable market adoption. Moreover, we would be concerned that

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<sup>39</sup> RCIA Final Argument, pp. 12–13.

<sup>40</sup> FEI Reply Argument, p. 9.

a shorter DSM Plan could jeopardize FEI's ability to encourage early adoption and increase participation to drive market transformation, which would not be in the public interest.

Nevertheless, the amount of funds for Innovative Technology is large and the escalation in funding since 2018 is noteworthy. While such funding may be necessary during the energy transition to support research into Advanced DSM and to accelerate market adoption, the Panel considers that additional annual reporting is warranted. This reporting will provide a balance between evaluating innovative technology programs at a portfolio level and ensuring these programs meet the definition of innovative technology in the DSM Regulation. Accordingly, **the Panel directs FEI to include the following information in FEI's DSM annual reports:**

- **For new measures that FEI transitions from the Innovative Technologies program area into main programs, the new measures' forecast of cost-effectiveness, energy savings, GHG emission reduction and participation; and**
- **For actual and forecast results on expenditures, energy savings, GHG emissions, participation and cost-effectiveness, a breakdown of results for those measures transitioned from the Innovative Technologies program into main program areas.**

## 2.2 BC's Energy Objectives

When considering whether to accept a utility's expenditure schedule under section 44.2 of the UCA, the BCUC must consider the applicable of BC's energy objectives, which are set out in section 2 of the CEA.<sup>41</sup> FEI describes how the proposed DSM Plan supports the applicable energy objectives listed in section 2 of the CEA, namely: (b) taking demand-side measures and conserving energy; (d) fostering innovative technologies; (g) reducing GHG emissions in BC by such other amounts as determined under the *Climate Change Accountability Act*; (i) encouraging communities to reduce GHG emissions and use energy efficiently; and (k) encouraging economic development and the creation and retention of jobs.<sup>42</sup>

FEI outlines how its DSM Plan supports the applicable BC energy objectives:

(b) The DSM Plan will implement demand-side measures as defined in the CEA.

(d) The DSM Plan includes expenditures on Innovative Technology projects, such as development and adoption of gas heat pumps.

(g) The DSM Plan programs will result in gas savings and commensurate reductions in greenhouse gas emissions of 201,087 tonnes carbon dioxide equivalent, which will contribute to the Province's efforts to achieve its GHG emission reduction targets.

(i) FEI's DSM programs encourage communities to reduce greenhouse gas emissions and use energy efficiently. Community Education and Outreach and Enabling Activities support local government strategic energy planning. Residential, Commercial, Low Income and Indigenous Program Areas and the Community Energy Specialists program include expenditures to support and further develop the BC Energy Step Code.

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<sup>41</sup> [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/10022\\_01#section2](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/10022_01#section2)

<sup>42</sup> Exhibit B-2, Table 5-1, p. 22.

(k) FEI's DSM Programs have a broad impact on the provincial economy through improving the productivity of businesses. FEI programs also create new opportunities for investment and employment to support energy efficiency in BC.

### *Positions of the Parties*

BCSEA submits that the 2024-2027 DSM Plan supports the BC's energy objectives.<sup>43</sup>

The CEC submits that FEI has adequately addressed the issues with respect to whether the DSM Plan supports the BC's energy objectives.<sup>44</sup>

RCIA agrees with FEI that the DSM Plan is consistent with BC energy objectives (b), (d), (g), (i), and (k), while submitting that FEI takes an overly simplistic approach to objective (g) related to the reduction of GHG emissions.<sup>45</sup>

### *Panel Discussion*

The Panel finds that FEI's DSM Plan is consistent with and supports the applicable energy objectives set out in the CEA. The Panel accepts that the energy objectives relevant to the Application are those listed as items (b), (d), (g), (i) and (k) in section 2 of the CEA.

## **2.3 The Most Recent Long-Term Resource Plan Filed by FEI**

When considering whether to accept a utility's expenditure schedule under section 44.2 of the UCA, the BCUC must consider the utility's most recent long-term resource plan filed under section 44.1 of the UCA. FEI's most recent long-term resource plan is the long-term gas resource plan that it filed with the BCUC in May 2022 (2022 LTGRP), covering the 20-year period from 2022 to 2042, and which is still under review. FEI explains that the 2022 LTGRP presents a 20-year view of the demand-side and supply-side resources identified to meet expected future gas demand, reliability requirements and provincial greenhouse gas reduction requirements at the lowest reasonable cost to FEI's customers.<sup>46</sup>

FEI describes in the 2022 LTGRP how DSM activities can result in significant energy and GHG emissions reductions over the planning horizon and examined a range of future scenarios, using different incentive levels, economic screens, and budget settings. FEI states, "As a pillar of FEI's Clean Growth Pathway, FEI anticipates expanding its existing DSM activities over the planning horizon to reduce GHG emissions to meet provincial GHG reduction targets. In particular, FEI's future DSM expenditure plans that will be filed with the BCUC for acceptance will be guided by the High DSM Setting analyzed in this LTGRP."<sup>47</sup>

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<sup>43</sup> BCSEA Final Argument, p. 12.

<sup>44</sup> CEC Final Argument, p. 13.

<sup>45</sup> RCIA Final Argument, p. 15.

<sup>46</sup> FEI 2022 Long Term Gas Resource Plan proceeding, Exhibit B-1, p. 1.

<sup>47</sup> Ibid., p. 5-1.

FEI states that the DSM Plan is broadly informed by the 2022 LTGRP, which examines the impact of FEI's long-term forecast for DSM activity on gas demand, projected gas delivery rates, and GHG emissions across alternate future scenarios over the 20-year LTGRP planning horizon and examines the impact of three different levels (low, medium and high) of DSM expenditures within the LTGRP planning scenario – FEI's Diversified Energy (Planning) Scenario.<sup>48</sup>

The main differences between the three DSM settings are the percentage of incentive (from 50 percent for the low setting to 100 percent for the high setting), and the threshold economic screen used to identify cost-effective measures. FEI modelled the potential for energy savings for the high DSM setting assuming an incentive of 100 percent of the incremental cost of the measure and a higher avoided cost of gas.<sup>49</sup>

FEI explains that it selected the High DSM setting in the LTGRP based on the availability of cost-effective demand-side measures, the objectives of FortisBC's Clean Growth Pathway to 2050, and the need for FEI to reduce GHG emissions in alignment with the 2030 Roadmap. FEI notes that it filed the 2022 LTGRP before the June 2023 amendments to the DSM Regulation. As a result of these amendments, FEI explains that there are two significant differences between the 2022 LTGRP and the DSM Plan. First, the 2022 LTGRP includes savings from incentives related to conventional gas space and water heating systems that will be phased out beginning in 2024. FEI is no longer forecasting the magnitude of expenditures and energy savings that it had included in the 2022 LTGRP. Second, the cost-effectiveness test used in the 2022 LTGRP is different from the one used in the DSM Plan, as discussed in Section 2.4 below.<sup>50</sup>

FEI provided the following comparison of the actual DSM savings up to 2023,<sup>51</sup> and the forecast DSM Plan savings against the DEP High DSM scenario explored in the 2022 LTGRP.

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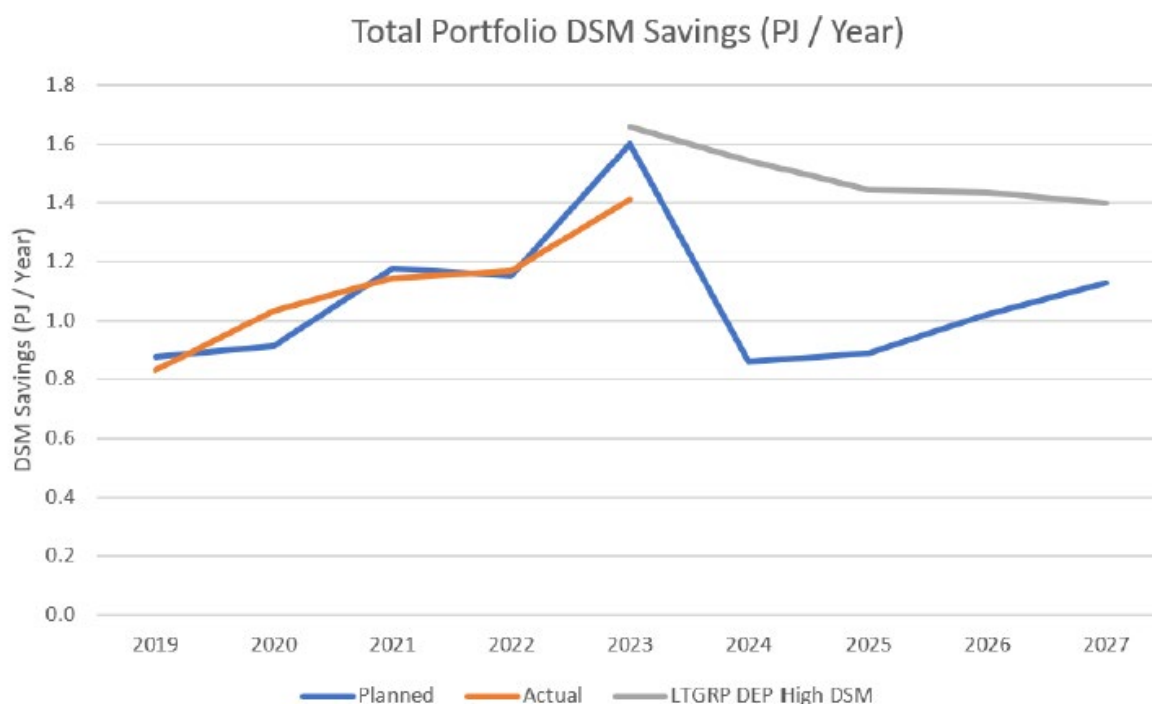
<sup>48</sup> Exhibit B-2, p. 23.

<sup>49</sup> FEI 2022 Long Term Gas Resource Plan proceeding, Exhibit B-1, p. 5-11 to 5-12. The High DSM setting used the modified Total Resource Cost (mTRC) and the avoided cost of gas defined by the previous DSM Regulation as an amount the BCUC is satisfied represents BC Hydro's long run marginal cost. For scenarios where mTRC is the economic screen, more measures will pass than for those where TRC is the screen.

<sup>50</sup> Exhibit B-2, p. 23.

<sup>51</sup> FEI explains in Exhibit B-6, BCOAPO IR 3.5 that the "2023 value in the orange "Actual" line includes the actual savings as of July 31, 2023, plus a forecast for the remainder of 2023. Please note that FEI's forecast gas savings for 2023 can be considered conservative based on actuals to-date and FEI continues to target the approved 2023 DSM Plan gas savings."

**Figure 2: Total Portfolio DSM Savings Comparison between the DSM Plan and 2022 LTGRP (PJ/year)<sup>52</sup>**



FEI states that the overall expenditures proposed in the DSM Plan generally fall between the 2022 LTGRP Medium and High DSM Settings, while the energy savings generally align with the Medium DSM Setting. The DSM Plan energy savings are less than the 2022 LTGRP High DSM Setting from 2024 to 2027 for the following reasons:<sup>53</sup>

- The amended DSM Regulation removes the ability to fund incentives for most conventional gas water and space heating equipment (Class B measures). As those measures had higher market adoption and lower incremental cost than some of the newly proposed advanced DSM measures, they required lower incentives for customers to adopt those measures against baseline efficiency models. FEI demonstrates how the DSM Plan complies with the definition of Class B DSM as set out in Section 1.1 of the amended DSM Regulation.<sup>54</sup>
- In response to the amended DSM Regulation, the DSM Plan incorporates a faster transition toward more Advanced gas DSM measures which are early in their commercialization, through higher expenditures for program incentives and innovative technology pilots than was envisaged in the 2022 LTGRP DSM analysis. Advanced DSM measures will require significant marketing, trade ally support, and higher customer incentives to achieve early adoption, relative to legacy measures. The unit costs per energy savings generally improve over time as market adoption of the new measures grows.

<sup>52</sup> Exhibit B-6, BCOAPO IR 3.5

<sup>53</sup> Exhibit B-2, pp. 24-25; Exhibit B-3, BCUC IR 7.1

<sup>54</sup> Exhibit B-2, Table 5-4, pp. 28-30.

- The 2022 LTGRP analysis provides a long-term outlook of DSM potential, using 2019 as a base year for its analysis. It does not address the design of DSM programs, including the time needed to ramp up new measures and programs or potential ramp down of old measures.

FEI notes that non-space and non-water heating measures (including the Industrial sector) in the DSM Plan remain consistent with the savings and expenditures assumptions of the High DSM Scenario.<sup>55</sup>

FEI submits that while there are differences between the DSM Plan and the 2022 LTGRP, these differences have been explained and the two plans are aligned in a number of important respects. For example, FEI notes that, consistent with the LTGRP, the DSM Plan continues to reflect a portfolio of DSM initiatives that are cost-effective and adequate pursuant to the DSM Regulation, consisting of residential, commercial, industrial, low income, Indigenous, innovative technologies, conservation education and outreach, as well as enabling DSM activities. FEI submits that “[u]ltimately, the DSM Plan continues to be a cost-effective and adequate portfolio that includes many of the initiatives presented in the 2022 LTGRP and reflects a consistent level of expenditures when compared to prior years.”<sup>56</sup>

### *Positions of the Parties*

BCSEA notes that FEI filed the 2022 LTGRP with the BCUC in May 2022 and the proceeding is still in progress. Nevertheless, BCSEA submits that the DSM Plan continues to align with 2022 LTGRP in many respects and supports a determination that the DSM Plan is in the public interest.<sup>57</sup>

The CEC submits that the DSM plan in the 2022 LTGRP is obsolete because of changes to the DSM Regulation.<sup>58</sup>

RCIA refers to the discrepancy between the DSM Plan and the 2022 LTGRP, noting that while it disagrees with FEI that there is alignment between the expenditures in the DSM Plan and the LTGRP, it accepts that FEI has adequately explained that the discrepancies are largely a result of the amendments made to the DSM Regulation after the 2022 LTGRP was filed.<sup>59</sup>

BCOAPO submits that approval of the 2024-2027 DSM Plan on the basis that it is aligned with the 2022 LTGRP is not a strong basis upon which to proceed and of less value in this proceeding than a consideration of the Application on its own merits within the current context.<sup>60</sup>

FEI submits in reply to interveners’ observations that both the 2022 LTGRP and the 2024-2027 DSM share the same objective to maximize the benefit of adequate, cost-effective DSM. Further, both plans include universal

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<sup>55</sup> Exhibit B-2, pp. 24-25.

<sup>56</sup> FEI Final Argument, p. 15.

<sup>57</sup> BCSEA Final Argument, p. 13.

<sup>58</sup> CEC Final Argument, p. 15.

<sup>59</sup> RCIA Final Argument, p. 28.

<sup>60</sup> BCOAPO Final Argument, p. 11.

access to programs, supporting market transformation, as well as being an important part of FortisBC's Clean Growth Pathway to reduced carbon emissions.<sup>61</sup>

### *Panel Discussion*

The Panel finds that the DSM Plan is generally aligned with FEI's approach to DSM in the 2022 LTGRP because, as we find in the next section, it continues to be a cost-effective portfolio that includes many of the initiatives presented in the 2022 LTGRP and reflects a consistent level of expenditures when compared to prior years. We accept that FEI prepared the 2022 LTGRP to comply with the previous DSM Regulation, and that it has prepared the DSM Plan to comply with the amended DSM Regulation. The phase out of incentives for conventional DSM such as gas, water and space heating equipment, the shift toward Advanced DSM measures such as dual fuel hybrid heat pump systems and the change in cost-effectiveness test, all lead the Panel to find the 2022 LTGRP less relevant than in prior DSM Plan proceedings.

The Panel notes that interveners accept that changes to the DSM Regulation make consideration of the 2022 LTGRP less relevant for the BCUC in determining whether the DSM Plan is in the public interest.

## **2.4 Cost-effectiveness of the DSM Plan**

When considering whether to accept or reject the DSM expenditure schedule under section 44.2(4) of the UCA, the BCUC must consider whether the demand-side measures are cost-effective within the meaning prescribed by the DSM Regulation.

The amendments to the DSM Regulation in June 2023 resulted in changes to both the types of measures that are eligible for incentives, as described in Section 2.1 of this Decision, and in how cost-effectiveness is to be assessed. FEI explains that except for legacy DSM, discussed in Section 2.4.1 below, the amended DSM Regulation changed the primary cost-effectiveness test from the Total Resource Cost test (TRC) to the Utility Cost Test (UCT). The UCT compares the benefits of the avoided gas costs from DSM to the utility, to the costs incurred by the utility (incentives plus non-incentive costs) to support DSM measure(s).<sup>62</sup> Section 4 (1.1) of the amended DSM Regulation requires the BCUC make determinations of cost effectiveness by applying the UCT using the avoided cost of natural gas equal to the avoided cost of distribution plus \$34.07 per gigajoule escalating by the Consumer Price Index (equal to the maximum purchase cost of renewable and low-carbon gas outlined in section 9 of the GRRR).<sup>63</sup>

The DSM Regulation provides the BCUC with the ability to assess the cost-effectiveness of DSM measures by comparing the costs and benefits of

- (a) the demand-side measure individually,
- (b) the demand-side measure and other demand-side measures in the portfolio, or
- (c) the portfolio as a whole.<sup>64</sup>

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<sup>61</sup> FEI Reply Argument, p. 15.

<sup>62</sup> Exhibit B-2, p. 34; Appendix A, p. 6.

<sup>63</sup> Ibid., p. 33.

<sup>64</sup> DSM Regulation, section 4 (1).

The amended DSM Regulation requires the BCUC to use the TRC to determine the cost-effectiveness of legacy expenditures made by a public utility. The cost-effectiveness of these measures is addressed in Section 2.4.1 below, followed by a discussion of the cost-effectiveness of the rest of FEI's DSM Plan in Section 2.4.2.

#### **2.4.1 Cost-effectiveness of Legacy Measures in the DSM Plan**

The amended DSM Regulation defines legacy measures as those demand-side measures included in expenditure schedules accepted before June 30, 2023 and provides that legacy expenditures are subject to the cost-effectiveness methodologies set out in section 4 of the DSM Regulation effective prior to June 30, 2023.<sup>65</sup> FEI states that legacy expenditures enable the fulfilment of committed incentives under a prior DSM Plan for conventional high-efficiency gas space and water heating equipment, which would now be classified as class B DSM and have limited eligibility for incentives under the amended DSM Regulation.<sup>66</sup>

The test for cost-effectiveness for legacy expenditures is the TRC, which is the ratio that results when the value of the benefits of DSM activity, as measured by avoided energy and capacity costs, is divided by the sum of the utility and customer costs for that DSM activity. A TRC ratio of 1.0 or more indicates that the benefit of a DSM activity equals or exceeds its total costs.

The DSM Regulation also allows a utility to use the modified Total Resource Cost (mTRC) test for up to 40 percent of its legacy expenditures. The mTRC uses an alternative avoided cost of energy and includes an adder for non-energy benefits.<sup>67</sup>

Before it was amended, the DSM Regulation described the avoided natural gas cost as the amount the BCUC “is satisfied represents [BC Hydro’s] long-run marginal cost of acquiring electricity generated from clean or renewable resources in British Columbia.”<sup>68</sup>

FEI uses a reference Long Run Marginal Cost (LRMC) of \$106/megawatt hour (MWh) (in fiscal 2018\$) from the BC Hydro Waneta 2017 Transaction Application. This value was also used to calculate the mTRC in FEI’s DSM 2021 Annual Report and FEI’s 2023 DSM Expenditure Schedule.<sup>69</sup> FEI also provides a calculation of the TRC and mTRC assuming a LRMC value of \$70/MWh (in fiscal 2022\$), the value presented in the BC Hydro 2021 Integrated Resource Plan (IRP) proceeding, currently under review.<sup>70</sup>

Table 4 below summarizes the TRC and mTRC benefit/cost ratios of the Legacy program area considering LRMC values of \$106/MWh and \$70/MWh. The mTRC values are 1 or higher using either of the LRMC values and therefore the Legacy program area is deemed to be cost effective.

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<sup>65</sup> DSM Regulation, Section 5.

<sup>66</sup> Exhibit B-2, p. 4. See also Exhibit A2-2, slide 22.

<sup>67</sup> Exhibit B-2, Appendix E, p. 24.

<sup>68</sup> DSM Regulation, Section 4(1.1)(a).

<sup>69</sup> Exhibit B-2, Appendix E, p. 24.

<sup>70</sup> BC Hydro 2021 Integrated Resource Plan proceeding, Exhibit B-39, Signposts Update, Appendix L-1.



**Table 3: Legacy Program Area TRC and MTRC Results<sup>71</sup>**

	\$106/MWh		\$70/MWh	
	TRC	mTRC	TRC	mTRC
Legacy Residential	0.3	1.3	0.3	0.8
Legacy Commercial	0.6	1.6	0.5	1.1
Legacy Low Income	2.5	2.5	1.7	1.7
Legacy Indigenous	1.1	1.1	0.7	0.7
<b>Legacy Program Area</b>	<b>0.5</b>	<b>1.5</b>	<b>0.4</b>	<b>1.0</b>

### 2.4.2 Cost-effectiveness of the DSM Plan

FEI states that its proposed DSM portfolio for 2024-2027 has a portfolio UCT cost-effectiveness result of 2.1.<sup>72</sup>

As noted above, the DSM Regulation provides flexibility in how the BCUC determines cost-effectiveness. This latitude is subject to two key exceptions. First, the BCUC must determine the cost-effectiveness of certain demand-side measures ('class A', previously referred to as 'specified') and public awareness programs at the portfolio level.<sup>73</sup>

FEI has class A demand-side measures in its Low Income, Indigenous, Conservation Education and Outreach, Innovative Technologies and Enabling Initiatives program areas.<sup>74</sup> The cost-effectiveness of class A DSM in the DSM Plan is to be assessed by determining whether the portfolio is cost effective as a whole.

The second key exception is that the BCUC is also required to assess the cost-effectiveness of class B DSM at the individual measure level.<sup>75</sup> FEI confirms that it is not proposing class B measures in the expenditure schedule, apart from Legacy Expenditures<sup>76</sup> discussed in Section 2.4.1 above.

FEI submits that the appropriate method for testing the cost effectiveness of the DSM Plan is at the portfolio level, citing several reasons including: the BCUC has used the portfolio level assessment in each of FEI's prior DSM expenditure applications; the requirement to assess more programs at the portfolio level, such as Low Income and Indigenous program areas, in addition to class A and public awareness has made the portfolio level more relevant; and it allows for the inclusion of new measures which might have higher initial costs, but provide significant long-term prospects to provide benefits.<sup>77</sup>

<sup>71</sup> Exhibit B-3, BCUC IR1 11.2.

<sup>72</sup> Exhibit B-2, p. 33.

<sup>73</sup> DSM Regulation section 4(4) and (5).

<sup>74</sup> Exhibit B-2, p. 34.

<sup>75</sup> Measures that encourage the acquisition or installation of conventional gas space and water heating equipment (Class B DSM) must have a UCT of 50 or greater to be cost effective after December 31, 2023.

<sup>76</sup> Exhibit B-3, BCUC IR 8.7.

<sup>77</sup> Exhibit B-2, p. 35.

To support a portfolio-level analysis, FEI provides Table 5 below, which shows the forecast gas savings in each of the program areas, and the UCT for the three main program areas, Residential, Commercial and Industrial.

**Table 4: Portfolio Gas Savings and Cost-Effectiveness by Program Area<sup>78</sup>**

Program	Yearly Incremental Gas Savings (GJ)					NPV of Gas Savings (\$000s)					UCT
	2024	2025	2026	2027	Total	2024	2025	2026	2027	Total	
Residential	166,655	187,759	208,552	232,596	795,562	\$67,699	\$81,016	\$94,528	\$109,960	\$353,202	2.0
Commercial	93,986	138,321	185,927	222,140	640,373	\$40,270	\$57,401	\$76,788	\$91,947	\$266,405	4.5
Industrial	365,533	394,550	473,459	516,985	1,750,526	\$74,821	\$85,505	\$98,284	\$114,310	\$372,920	11.0
Low Income	50,684	56,992	64,579	75,588	247,843	\$20,238	\$23,619	\$27,588	\$33,361	\$104,807	-
Indigenous	16,076	22,237	27,421	29,225	94,959	\$20,377	\$10,114	\$13,914	\$14,892	\$59,297	-
Conservation Education and Outreach <sup>9</sup>	20,000	30,000	30,000	30,000	110,000	\$3,466	\$5,200	\$5,200	\$5,200	\$19,066	-
Innovative Technologies	Savings Not Estimated										
Enabling Activities	Savings Not Estimated										
Portfolio Level Activities	Savings Not Estimated										
Legacy Expenditures	147,185	57,878	31,361	21,340	257,765	\$91,704	\$34,477	\$16,590	\$11,155	\$153,926	-
<b>Total</b>	<b>860,118</b>	<b>887,737</b>	<b>1,021,299</b>	<b>1,127,874</b>	<b>3,897,028</b>	<b>\$318,575</b>	<b>\$297,331</b>	<b>\$332,891</b>	<b>\$380,825</b>	<b>\$1,329,621</b>	<b>2.1</b>

Within each program, individual measures exhibit a wide range of cost-effectiveness results. FEI provides the following table showing the cost-effectiveness results for Advanced DSM measures within the Residential program area, using the cost of renewable gas as the avoided cost for both the UCT (as required in the DSM Regulation) and TRC (for demonstration purposes).<sup>79</sup>

**Table 5: Cost-effectiveness Test Results for Advanced DSM Measures in the Residential Program Area**

Measures	UCT	TRC	PCT	RIM
Hybrid (Dual-Fuel) Systems	1.0	0.6	0.8	0.2
High-Efficiency Heat Recovery Ventilator	2.9	3.0	1.7	0.3
Whole Home Performance	1.9	1.7	1.3	0.2
Whole Home Performance Support <sup>1</sup>	N/A	N/A	N/A	N/A
Space and water heating controls	6.7	4.0	1.5	0.5

<sup>78</sup> Exhibit B-2, Appendix A, Exhibit 4, p. 11.

<sup>79</sup> The Ratepayer Impact Measure (RIM) test uses the cost of conventional gas. The Participant Cost Test (PCT) uses customer retail costs and incentives to calculate benefits. (Exhibit B-5, RCIA IR 6.1) FEI notes that although the PCT and RIM may be useful for program design, the BCUC cannot use these tests to assess the cost-effectiveness of the DSM Plan. (FEI Final Argument, p. 24 and FEI Reply Argument p. 6.)

FEI notes that it monitors DSM programs monthly, so that it can identify trends in cost-effectiveness related to program and portfolio expenditures and adjust as needed, to ensure that the portfolio meets a UCT of 1 on an annual basis. FEI states that it will continue to report on individual DSM program cost-effectiveness results in its DSM annual reports, along with the individual program cost-effectiveness projections provided in the DSM Plan.<sup>80</sup>

### *Positions of the Parties*

BCSEA submits that FEI's 2024-2027 DSM Plan, with a portfolio UCT cost-effectiveness result of 2.1, is cost effective under the amended DSM Regulation. In addition, BCSEA notes that the Legacy Expenditures Program Area is cost-effective because it has a mTRC value of 1.5, determined under the provisions of the DSM Regulation prior to the amendments in June 2023.<sup>81</sup>

The CEC agrees that FEI's legacy expenditures are cost-effective under the DSM Regulation and that the non-legacy expenditures in the DSM Plan are cost-effective using the UCT calculated at the portfolio level.

RCIA states that under the previous DSM Regulation, it would have proposed that FEI reduce spending on Advanced DSM measures because FEI gets so little savings from these expenditures. However, RCIA accepts that FEI must operate within the amended DSM Regulation, noting that as costly as these measures are, they may be less expensive than achieving the equivalent GHG savings by replacing conventional gas with renewable natural gas (RNG) or hydrogen, as indicated by the UCT scores greater than or equal to 1.0.<sup>82</sup>

RCIA submits that even though the DSM Regulation allows the BCUC to approve DSM expenditures for measures that individually are not cost effective, that does not mean these measures are a good idea or in the public interest. By way of example, RCIA refers to the residential hybrid heating measure, with a TRC score of 0.6, meaning the costs of the measure exceed the benefits even when those benefits are based on the price of RNG at \$34/gigajoule, and participant cost test (PCT) score of 0.8, meaning they cost participants more than they save.<sup>83</sup> As such, RCIA submits it may be prudent to slow the expenditures of Advanced DSM until the cost effectiveness improves, even if those measures pass a UCT evaluation based on the prescribed avoided capacity cost amount.<sup>84</sup>

In RCIA's submission, the best approach for the BCUC would be to continue to assess most DSM measures at the portfolio level, but to individually assess the Advanced DSM measures in the Innovative Technologies program area. It is appropriate to exclude those measures from the 2024-2027 DSM Expenditures Plan if those measures fail the UCT prescribed in the DSM Regulation. This approach reflects the fact that there is an alternative to reducing GHG emissions, which is the use of low-carbon gases such as RNG.<sup>85</sup>

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<sup>80</sup> Exhibit B-2, pp. 35-36.

<sup>81</sup> BCSEA Final Argument, pp. 13-14.

<sup>82</sup> RCIA Final Argument, p. 8.

<sup>83</sup> Ibid., p. 9.

<sup>84</sup> Ibid., p. 9.

<sup>85</sup> Ibid., p. 19.

RCIA submits that the BCUC should amend the proposed DSM Plan by suspending the expenditures related to the Residential Dual Fuel Hybrid Systems measure for 2024, and by making expenditures related to the Residential Dual Fuel Hybrid Systems and Whole Home Performance measures conditional on FEI demonstrating that these measures pass the prescribed cost-effectiveness test. If these pilot DSM measures fail to meet the UCT, then it is more economical to reduce GHG emissions with RNG or other low-carbon gases.<sup>86</sup>

FEI replies that, given its proven track record of implementing programs that are cost-effective per the DSM Regulation and existing reporting through its annual reports, RCIA's recommendations are redundant and inefficient and should be rejected.<sup>87</sup>

### *Panel Determination*

The Panel finds that the DSM Plan is cost effective within the meaning prescribed by the DSM Regulation. In making this finding, we have considered whether it is appropriate to evaluate the DSM Plan on a portfolio basis and whether the DSM Plan and Legacy DSM are cost effective using the tests set out in the DSM Regulation.

The Panel is satisfied that it is appropriate to evaluate the cost-effectiveness of the DSM Plan, including the Legacy Expenditures, on a portfolio level. This is consistent with the BCUC's recent practice. Further, this gives FEI the flexibility to implement programs and to achieve a more equitable balance of expenditures and savings across sectors. Finally, we recognize that Advanced DSM measures are new to a market that is accustomed to conventional DSM, and a portfolio level assessment facilitates their ability to gain traction in the market.

Intervenors also support a portfolio level evaluation, with one specific reservation from RCIA. RCIA suggests that the BCUC assess most DSM measures at the portfolio level and individually assess the Advanced DSM measures in the Innovative Technologies program area. However, section 4(4) of the DSM Regulation requires the BCUC to determine the cost-effectiveness of a class A demand-side measure, which includes measures in an innovation technology program, by determining whether the portfolio is cost effective. Further, as noted above in Section 2.1.1, FEI states that it will only move pilot DSM measures from the Innovative Technologies program area into a permanent program if the results of the pilot are successful, and the program is forecast to be cost-effective and achieve reasonable market adoption. Therefore, we reject RCIA's suggestion.

We find that the Legacy program area is cost effective because the mTRC value is equal or higher than 1 using an LRMC of either \$106/ MWh or \$70/ MWh. In addition, the rest of the DSM Plan is cost effective because the UCT value, using the avoided cost of \$34.07 per GJ in 2023/24, is higher than 1. Whereas intervenors have suggested we consider tests other than the UCT or mTRC, such as the participant cost test (PCT) or ratepayer impact measure (RIM), the Panel finds that these are not considerations for cost-effectiveness within the meaning prescribed by regulation. On the other hand, these tests may raise issues that we consider under the next section.

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<sup>86</sup> RCIA Final Argument, p. 22.

<sup>87</sup> FEI Reply Argument, p. 11.

## 2.5 The Interests of Persons in BC who Receive or may Receive Service from FEI

FEI submits that the proposed DSM expenditures are in the interests of FEI's customers and potential customers. First, the Plan encourages energy efficiency and conservation because it will result in an estimated 3.9 petajoules/year in net incremental annual gas savings. In addition, it will accelerate market transformation in preparation for future DSM measures that will have to meet more stringent efficiency requirements.<sup>88</sup>

Second, the DSM Plan will reduce GHG emissions, which has both a local and global benefit to participating customers and non-participating customers. The DSM Plan achieves emissions reductions by market transformation of higher efficiency natural gas equipment and investment in the acceleration of Advanced DSM adoption.<sup>89</sup>

FEI notes that customers that avail themselves of DSM measures will reduce their gas consumption and GHG emissions.<sup>90</sup>

According to FEI, the forecast delivery rate impacts arising from the 2024 to 2027 DSM expenditures are 1.5 percent in 2025, with a cumulative increase of 5 percent by 2028. For residential customers, the cumulative increase is higher at 5.27 percent or \$0.676/gigajoule.<sup>91</sup>

FEI submits that its extensive consultation process has resulted in a fair representation of stakeholder and customer interests. FEI explains that it consults at nearly every step of the process, and the DSM Plan has been shaped by approximately 80 consultation interactions from program up to portfolio level. FEI consulted with various parties, including communities, customers, contractors, manufacturers, Indigenous groups, energy advisors, interest groups, partners, program implementers and FEI's Energy Efficiency and Conservation Advisory Group. The forms of consultation included workshops, webinars, surveys and individual outreach.<sup>92</sup>

FEI also refers to the diverse stakeholders that filed 25 letters of support for the DSM Plan, which it submits demonstrate substantial support for the DSM Plan.<sup>93</sup>

### *Positions of the Parties*

BCOAPO submits that the market transition to Advanced DSM programming delivers fewer savings at significantly higher cost and is largely based on programming still under review as part of pilot programs.<sup>94</sup> BCOAPO states that for residential customers, the uncertainty and risk that programs may not be cost effective

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<sup>88</sup> FEI Final Argument, p. 25.

<sup>89</sup> Ibid., p. 25.

<sup>90</sup> Exhibit B-2, p. 32.

<sup>91</sup> Exhibit B-6 BCOAPO IR 13.2, 13.3.

<sup>92</sup> FEI Final Argument, p. 27.

<sup>93</sup> Ibid., p. 29.

<sup>94</sup> BCOAPO Final Argument, pp. 7-8.

or achievable is sizable, particularly given that the UCT of hybrid heating systems are barely cost effective even with the significant increase in the value by which the cost effectiveness is now to be evaluated.<sup>95</sup>

BCOAPO submits that even those who do not participate in FEI's DSM programs – perhaps they cannot afford to – are paying higher utility rates to offset the cost of those programs. Further, BCOAPO notes that the overall rate impact to the residential class of the DSM Plan by 2028 is 5.27 percent, whereas the impact to other classes ranges from 2.64 percent to 4.61 percent.<sup>96</sup>

BCOAPO submits that FEI did not provide any sensitivity analyses demonstrating alternative incentive levels and the fact that FEI declined to analyze alternative incentive levels for the DSM Plan is a serious flaw in the Application. It states that money spent on DSM measures must be allocated responsibly and without alternatives or a sensitivity analysis, there is no way to know if that balance has been struck.<sup>97</sup> BCOAPO asks the BCUC to direct FEI to develop a reasonable set of alternatives as part of any future plans.<sup>98</sup>

FEI replies to BCOAPO that it has proposed a DSM Plan that is consistent with its plan in the 2022 LTGRP to maximize the gas savings and GHG reduction potential of adequate, cost-effective DSM and, as such, FEI has no alternatives to recommend.<sup>99</sup> Further, FEI submits that contrary to BCOAPO's contention, it has proposed higher incentive levels for Advanced DSM measures to encourage early adoption and increase participation to drive market transformation, thus increasing affordability and accessibility. FEI adds that approximately 70 percent of the Advanced DSM expenditures are intended to support residential, low-income and Indigenous customers, which increases the DSM Plan's accessibility to a wider number of these customer sectors.<sup>100</sup>

The CEC states that it supports the consultative processes that FEI used to develop the DSM Plan, and that FEI's extended consultations have been invaluable for the Commercial Sector. The CEC sees significant future opportunities to develop substantial benefits for customers through continued consultations with FEI.<sup>101</sup> In addition to the approved UCT (discussed in section 2.4) the CEC submits that the PCT, RIM and a societal cost test (such as the former mTRC) produce information that is vital to a clear understanding of the key benefits that arise from the various DSM measures.<sup>102</sup>

The CEC submits it is most appropriate to assess the DSM Plan at the program level as well as the portfolio level. Further, it submits that assessing a DSM plan only on a portfolio level fails to highlight specific areas in which the utility could add cost-effective DSM measures and that the BCUC risks missing many aspects of assessing fairness between program areas.<sup>103</sup> As an example, the CEC notes that the amended DSM Regulation has

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<sup>95</sup> BCOPAO Final Argument, p. 8

<sup>96</sup> Ibid., p. 14.

<sup>97</sup> Ibid., p. 15.

<sup>98</sup> Ibid., p. 15.

<sup>99</sup> FEI Reply Argument, p. 5.

<sup>100</sup> Ibid., p. 3.

<sup>101</sup> CEC Final Argument, p. 31.

<sup>102</sup> Ibid., pp. 25 and 26.

<sup>103</sup> Ibid., pp. 28-29.

significantly impacted FEI's commercial programming because the Commercial program area can no longer incent new applications for conventional high-efficiency gas space and water heating equipment after December 31, 2023. Thus, the DSM Plan has substantially reduced the programming available to commercial customers, which leads to an even greater reduction in commercial gigajoules/year savings.<sup>104</sup> The CEC indicates that although it is satisfied with FEI's explanation for the reductions, FEI has not provided a sufficiently robust program path to recover or largely offset some of these losses.<sup>105</sup>

In reply to the CEC, FEI states that it is planning programs for all the available commercial DSM activities and there is no basis, at this time, to suggest that FEI should increase spending or incentives in the Commercial program area. Further, if participation exceeds FEI's expectations, FEI can consider using the funding transfer rules to support additional expenditures in the Commercial program area.<sup>106</sup>

RCIA points to the increase in delivery rates for FEI's customers that will result from the DSM Plan: a typical residential customer will see an increase in their delivery bill by \$57 each year although a participating residential customer can expect to save \$27 to \$36 per year on average. This means, RCIA observes, that the net impact on participating residential customers is negative and that the net impact is even worse for non-participating customers. Nevertheless, RCIA supports the DSM Plan, albeit reluctantly, stating that in light of the amendments to the DSM Regulation, "FEI and the BCUC have little choice on how cost effectiveness is determined for the purpose of approving a DSM Expenditures Plan. Where the BCUC has a choice is in applying the prescribed UCT to individual measures, programs, or the overall portfolio."<sup>107</sup>

### *Panel Discussion*

The Panel has considered the interests of persons in BC who receive or may receive service from FEI. We are persuaded that the DSM Plan is in the interests of all British Columbians because it will create annual gas savings, accelerate market transformation, and reduce GHG emissions. The DSM Plan is in the interests of FEI's customers because it offers incentives for DSM measures. In addition, we accept that FEI's consultation efforts and the positive Letters of Comment from a broad range of stakeholders reflect that the DSM Plan is in the interests of the people of BC. In addition, the DSM Plan meets the cost-effectiveness tests, which provides additional support for our conclusion.

Nevertheless, the fact that the DSM portfolio is cost effective and furthers government climate policy, and that FEI's stakeholders support the DSM Plan, must not overshadow the concerns that interveners have raised and which we address below.

We have considered BCOAPO's concerns that the DSM Plan will result in a higher impact on residential rates than on other customer sectors and its suggestion that FEI should have presented alternatives or at least done

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<sup>104</sup> CEC Final Argument, pp. 17, 18.

<sup>105</sup> Ibid., p. 28.

<sup>106</sup> FEI Reply Argument, p. 14.

<sup>107</sup> RCIA Final Argument, p. 21.

some sensitivity analyses. Although there is no regulatory requirement that FEI present alternatives as part of the DSM Plan, we note that FEI does analyse alternatives in the LTGRP.

The Panel rejects the CEC's suggestion that, in addition to assessing a DSM plan on a portfolio level, we should evaluate the DSM Plan to assess fairness between program areas. The CEC has not explained how a program level evaluation would highlight specific areas in which FEI could add cost-effective DSM measures. Instead, we encourage the CEC to inform FEI if it identifies specific obstacles resulting in missed opportunities.

Finally, we accept RCIA's observation that the DSM Plan will result in a negative net impact on residential customers, regardless of participation in DSM measures. For the purpose of considering the interests of FEI's customers, however, RCIA has not persuaded the Panel that a negative net impact of this magnitude is contrary to the interests of FEI's customers.

## 2.6 Overall Determination on the Public Interest

After considering the factors set out in section 44.2(5) of the UCA and explored in Sections 2.2 to 2.5 of this Decision, subsection 44.2(3) and (4) requires the BCUC to either accept the schedule, if it considers that making the expenditures would be in the public interest, or reject it, in whole or in part.

### *Positions of the Parties*

The CEC and BCSEA support BCUC acceptance of FEI's 2024-2027 DSM Expenditure Schedule as submitted.<sup>108</sup>

As outlined in Section 2.4 above, RCIA supports the DSM expenditure schedule except for those Advanced DSM measure expenditures in the sector program budgets that are still in the pilot project stage.<sup>109</sup>

As outlined in Section 2.5 above, BCOAPO notes a number of concerns with FEI's DSM Plan largely associated with the uncertainty and risk in light of the transformational and rapidly evolving environment in which FEI is operating. It recommends that the BCUC limit its approval to the first two years of the DSM Plan and require FEI to develop a new DSM Plan for review in 2025.<sup>110</sup>

### *Panel Determination*

Having considered section 44.2 of the UCA, and for the reasons set out above and as summarized below, **the Panel finds that making the expenditures referred to in the schedule would be in the public interest and accepts the DSM expenditure schedule for the period of 2024 to 2027 outlined in Table 1-1 of the Application pursuant to section 44.2(3) of the UCA.**

The Panel finds that the DSM Plan is consistent with energy objectives set out in the CEA, and with FEI's most recently filed long-term resource plan for the reasons set out in Section 2.3. The DSM Plan is also cost-effective

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<sup>108</sup> CEC Final Argument, p. 34; BCSEA Final Argument, p. 3.

<sup>109</sup> RCIA Final Argument, p. 28.

<sup>110</sup> BCOAPO Final Argument, pp. 3-4.



as set out in the amended DSM Regulation. The Panel finds that it is appropriate to evaluate the DSM Plan at the portfolio level, and the UCT test value at that level is greater than 1, which indicates that the DSM Plan has benefits exceeding its costs.

As addressed in Section 2.4 above, the Panel is not persuaded by RCIA's submission that the Panel should withhold approval for those Advanced DSM measure expenditures in the sector program budgets that are still in the pilot project stage.

As addressed in Section 2.5 above, the Panel is not persuaded by BCOAPO's recommendation that the Panel should limit the approval of the DSM Plan to two years and require FEI to develop a new DSM plan for review in 2025.

The Panel finds that the DSM Plan is in the interests of persons in British Columbia who receive or may receive service from FEI.

### 3.0 Additional Approvals Sought

#### 3.1 Funding Transfers and Variances

FEI is requesting that the following funding transfer and variance rules, as approved by the BCUC in its Decision and Order G-45-23, remain in place for its 2024-27 DSM Plan:

- *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 approval is required.*<sup>111</sup>
- *FEI is permitted to exceed total accepted expenditures in the final year of a DSM expenditure schedule by no more than five percent without prior approval from the BCUC.*<sup>112</sup>

FEI is proposing one change to the funding carryover rule, namely that it be permitted to carryover both overspent and unspent expenditures in a program year to the same program area in the following year. The current rule provides only for unspent amounts. The revised rule would state: <sup>113</sup>

- *FEI is permitted to carryover unspent and overspent expenditures in a Program Area to the same Program Area in the following year. [Emphasis added]*

FEI summarizes the rules as follows:<sup>114</sup>

- FEI does not require approval to transfer funds into an approved program area;
- FEI requires approval to transfer funds greater than 25 percent out of a program area;

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<sup>111</sup> Exhibit B1-2, p. 39.

<sup>112</sup> Ibid., p. 41.

<sup>113</sup> Ibid., p. 39-40.

<sup>114</sup> FEI Final Argument, p. 31.

- There are no limits on how much one program area can gain;
- FEI is required to report on any transfers into and out of program areas in its DSM annual report to the BCUC; and
- The Innovative Technologies program area is included in the funding transfer rules for FEI.

FEI states that it will continue to report on these funding transfers in its annual reporting on DSM to the BCUC and will take into consideration all of the recommendations made by the BCUC in prior decisions<sup>115</sup> regarding funding transfer applications.<sup>116</sup>

### *Positions of the Parties*

FEI submits the proposed change is reasonable and should be approved, noting the effect will be to accept the total expenditures per program area over the time period of the expenditure schedule, thus providing FEI with the flexibility to manage both positive and negative carry over amounts during a DSM plan period.<sup>117</sup>

No interveners object to any of the additional approvals sought.<sup>118</sup>

The CEC proposes an additional rule that would give FEI flexibility to take on DSM opportunities in an overspent program. This could take the form of an opportunity transfer fund of 10 percent, to avoid lost or deferred opportunities.<sup>119</sup> Similarly, the CEC supports increasing the variance allowance up to 10 percent to grant FEI the flexibility to realize opportunities for energy savings that require additional expenditure.<sup>120</sup>

FEI replies that while it is not opposed to the CEC's proposal, FEI considers that its proposed transfer rules already provide sufficient flexibility to manage its DSM portfolio effectively, and already has the option to file an additional or amended DSM expenditure schedule if necessary.<sup>121</sup>

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<sup>115</sup> FBC 2023-2027 DSM Expenditures Decision and Order G-371-22, reaffirmed in FEI's 2023 DSM Expenditures Decision and Order G-45-23.

<sup>116</sup> Exhibit B1-2, p. 39.

<sup>117</sup> FEI Final Argument, p. 31.

<sup>118</sup> BCOAPO Final Argument, p. 3; BCSEA Final Argument, pp. 18-20; RCIA Final Argument, pp. 23-24.

<sup>119</sup> CEC Final Argument, p. 32.

<sup>120</sup> *Ibid.*, p. 33.

<sup>121</sup> FEI Reply Argument, p. 16.

### *Panel Determination*

The Panel approves the following continuances of FEI transfer and variance rules:

- BCUC approval is required for a proposed transfer out of an approved program that exceeds 25 percent of that program's expected expenditures.
- FEI is permitted to exceed total accepted expenditures, in respect of the final year of the 2024-2027 DSM Expenditure Schedule only, by no more than five percent without prior BCUC approval.

The Panel also approves FEI's request to carryover unspent and overspent expenditures in a Program Area to the same Program Area in the following year.

For clarity, the Panel approves the following transfer rules:

- FEI does not require approval to transfer funds into an approved program area;
- FEI requires approval to transfer funds greater than 25 percent out of a program area;
- There are no limits on how much one program area can gain;
- FEI is required to report on any transfers into and out of program areas in its DSM annual report to the BCUC; and
- The Innovative Technologies program area is included in the funding transfer rules for FEI.

In approving the continuation of these funding transfer rules, the Panel echoes the BCUC's observation in the FEI 2023 DSM Decision<sup>122</sup> that the BCUC retains its ability to determine that a transfer is not in the public interest, thus disallowing recovery through rates. Although the BCUC is limited in its ability to review the cost-effectiveness of some individual DSM program areas, such as Innovative Technologies, we consider that the ability to disallow recovery through rates for a transfer that is not in the public interest is an important safeguard.

All the interveners support FEI's requests. The CEC suggests an additional transfer rule to be added to the existing rules, however the Panel agrees with FEI that there is sufficient flexibility within the present rules and there is little or no need to add an additional transfer rule.

## **3.2 Accounting Treatment**

FEI proposes to continue including an amount of \$60 million, as approved as part of its 2023 DSM application,<sup>123</sup> in its rate base DSM deferral account on a forecast basis over the 2024 to 2027 period.<sup>124</sup>

Under the treatment approved in the 2023 DSM Plan, FEI forecasts \$60 million of expenditures in the rate base DSM deferral account each year. In addition, FEI accounts for the difference between the \$60 million forecast

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<sup>122</sup> BCUC Order G-45-23, p. 22.

<sup>123</sup> Ibid.

<sup>124</sup> Exhibit B1-2, p. 41.

and the actual/projected expenditure levels, up to the approved amount, in FEI's non-rate base DSM deferral account, attracting a weighted average cost of capital return. The closing balance of the non-rate base DSM deferral account is then transferred to FEI's rate base DSM deferral account at the beginning of the following year.<sup>125</sup>

### *Positions of the Parties*

FEI notes that the DSM Plan continues to include expenditures well above \$60 million, resulting in little risk of FEI not achieving this level of expenditure. FEI submits this provides a benefit to customers, because it reduces the financing costs added to the DSM deferral account, as well as the overall costs to customers on the non-rate base portion of the DSM Plan expenditures.<sup>126</sup>

No interveners objected to FEI's proposal.<sup>127</sup>

Given that FEI is regularly spending more than \$60 million annually, the CEC recommends that this amount be increased to \$80 million to better align with FEI's more typical spending levels.<sup>128</sup>

FEI submits there is merit to the CEC's suggestion given the level of historical spending.<sup>129</sup>

### *Panel Determination*

**The Panel approves FEI's proposal to continue to include the amount of \$60 million in its rate base DSM deferral account on a forecast basis over the 2024 to 2027 period.** Given FEI's DSM Plan continues to reflect yearly expenditures well above \$60 million, it is unlikely FEI would not achieve this level of annual expenditure in the future. Although the CEC suggests increasing the DSM deferral account level to \$80 million to match the projected annual expenditure more closely in the 2024-2027 DSM Expenditure schedule, we find that the present transfer rules provide sufficient flexibility to FEI to deal with any significant variances which might affect the projected amount allocated to the DSM deferral account so as to render the CEC's proposed increase unnecessary.

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<sup>125</sup> Exhibit B1-2, p. 41

<sup>126</sup> FEI Final Argument, p. 33.

<sup>127</sup> BCOAPO Final Argument, p. 3; BCSEA Final Argument, p. 18; RCIA Final Argument p. 23.

<sup>128</sup> CEC Final Argument, p. 34.

<sup>129</sup> FEI Reply Argument, p. 17.