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October 3, 2022

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Ms. Sara Hardgrave, Acting Commission Secretary

Dear Ms. Hardgrave:

Re: FortisBC Energy Inc. (FEI)

Project No. 1599352

Application for Acceptance of Demand-Side Management (DSM) Expenditures for 2023 (Application)

Response to the British Columbia Utilities Commission (BCUC) Information Request (IR) No. 1

On July 5, 2022, FEI filed the Application referenced above. In accordance with the regulatory timetable established in BCUC Order G-219-22 for the review of the Application, FEI respectfully submits the attached response to BCUC IR No. 1.

For convenience and efficiency, FEI has occasionally provided an internet address for referenced reports instead of attaching lengthy documents to its IR responses. FEI intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

Table of Contents **Page No.**

A. DSM EXPENDITURE SCHEDULE

1.0 Reference: INTRODUCTION

Exhibit B-1, Section 1, p. 1

One Year Plan

On page 1 of the 2023 Demand Side Management (DSM) Expenditures Plan (Application), FEI states:

> FEI is filing a one-year plan because new policy direction included in the late-2021 CleanBC Roadmap to 2030 (Roadmap) is anticipated to result in changes to the Demand-Side Measures (DSM) Regulation before 2024 that are likely to have implications for FEI's DSM portfolio.

1.1 Please explain the potential for an extension of the 2023 DSM Expenditure Plan in the event the DSM Regulation review is not finalized before 2024.

Response:

FEI does not anticipate an extension of the 2023 DSM Expenditure Plan will be required. FEI currently intends to file an application with the BCUC for acceptance of its DSM expenditures for 2024 to 2027 during 2023 and will work with stakeholders to ensure that this upcoming DSM Plan aligns with any proposed changes to the DSM Regulation, including any that are planned to be in effect for 2024 but that may not be fully enacted at the time of filing.

However, in the unlikely event that it becomes apparent that DSM Regulation amendments are still forthcoming but will not be finalized by the end of 2023, FEI intends to assess the policy and market environment at that time to determine whether a multi-year plan is still appropriate or whether another one-year plan is the most prudent approach.

2.0 Reference: BACKGROUND AND REQUIRED CONSIDERATIONS

Exhibit B-1, Section 3.1, p. 5

Highest Efficiency Equipment

On page 5 of the Application, FEI states:

> FEI's 2023 DSM Plan continues to include incentives for highest efficiency gas equipment as significant opportunities still exist in the market to advance GHG [greenhouse gas] emission reductions through customer adoption of these measures. While the 2023 DSM Plan and FEI's five-year DSM vision include testing and ultimately developing customer programs for the advanced DSM items cited in the Roadmap, incentives for high efficient gas equipment are still required in order to meet provincial objectives.

2.1 Please explain FEI definitions of "highest efficiency gas equipment" and "advanced DSM items."

Response:

FEI's use of the term "highest efficiency gas equipment" in the Application generally refers to measures that are more efficient than prescribed in the BC Energy Efficiency Standards Regulation.

FEI's use of the term "advanced DSM" in the Application refers to new or emerging DSM measures, including deep retrofits, gas heat pumps and dual-fuel hybrid heating systems. In alignment with the CleanBC Roadmap, FEI intends to transition its DSM portfolio to advanced DSM measures over time.

2.1.1 Please provide examples for each category, including references to measures included in the current Application.

Response:

Examples of the highest efficiency gas equipment and advanced DSM measures are provided in the tables below.

Highest Efficiency Gas Equipment	Application Reference
Residential and commercial furnace	Appendix A, Sections 3 and 4
Residential condensing tankless water heater	Appendix A, Section 3
Commercial boiler	Appendix A, Section 3
Advanced DSM	**Application Reference**
Gas Heat Pumps	Appendix A, Sections 4 and 8
Hybrid Heating	Appendix A, Section 8
Deep Retrofits	Appendix A, Section 8

2.2 Please indicate if the 2023 DSM Plan includes measures for space and water heating equipment that is at least 100 percent efficient.

Response:

Yes. The table below identifies measures for space and water heating that are at least 100 percent efficient and are included in the 2023 DSM Plan in the associated program areas.

Please note the measures identified fall within prescriptive programs and pilot projects, while other programs, including custom or whole building programs, may also include measures for space and water heating that are at least 100 percent efficient. An example of such a measure is a heat recovery chiller. These programs can vary significantly due to the custom nature of measures which differ from project-to-project. Therefore, FEI has not included these programs in the table below.

Commercial Prescriptive Program	Space Heating	Water Heating
Hybrid Systems	X	
Gas Heat Pump	X	X
Low Income Prescriptive Program		
Commercial Gas Heat Pump	X	X
Innovative Technologies		
Pilot Projects - Gas Heat Pumps	X	X
Pilot Projects - Hybrid Heating	X	

3.0 Reference: COST–EFFECTIVENESS

DSM Regulation, section 4(1.1); Exhibit B-1, Section 5.1.3, p. 24; British Columbia Hydro and Power Authority (BC Hydro) 2021 Integrated Resource Plan (IRP) proceeding, Exhibit B-1, Appendix L, p. 13-14; BC Hydro Fiscal 2022 Revenue Requirement Application proceeding, Exhibit B-2, p. 10-20

Modified Total Resource Cost Test

Section 4(1.1) of the DSM Regulation states, with respect to calculating the Modified Total Resource Cost Test (mTRC), that "the avoided natural gas cost, if any, respecting a demand-side measure, in addition to the avoided capacity cost, is the amount that the commission is satisfied represents the authority's long-run marginal cost of acquiring electricity generated from clean or renewable resources in British Columbia."

On page 24 of the Application FEI states, with respect to the information used for the calculation of the mTRC, the following:

> At the time of writing, the ZEEA [zero-emission energy supply alternative] value used in the MTRC calculation is $106/1 MWh, or 29.45/GJ. The source for this number is BC Hydro's Waneta 2017 Transaction Application to the BCUC that established BC Hydro's LRMC at $106/MWh in F2018$. This value is consistent with the value used to calculate the MTRC for FEI's DSM 2021 Annual Report.

On page 10-20 of BC Hydro's Fiscal 2022 Revenue Requirement Application (RRA), BC Hydro reported its long run marginal cost (LRMC) of acquiring electricity from clean or renewable resources in BC. It was $54 per MWh in F2022 dollars, based on the low end of the preliminary range of the cost of new wind resources. BC Hydro also indicated that such value was outdated and an update would be provided in the IRP.[1] The BCUC approved the DSM expenditures contained in the BC Hydro Fiscal 2022 RRA by Order G-187-21.

In BC Hydro's 2021 IRP, currently under review by the BCUC, BC Hydro proposes an energy long-run marginal cost of $65/MWh [2] in F2022 dollars based on the cost of new wind power in the Please River region.

3.1 Please, provide a calculation of the mTRC for all applicable measures, program areas and the total portfolio in the Application, using ZEEA values of (i) $54/MWh, and (ii) $65/MWh.

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1 BC Hydro F2022 Revenue Requirement Application, p. 10-20.

2 This value includes the cost of energy, cost of incremental firm transmission (CIFT), network upgrades, wind integration, transmission losses, and time of delivery adjustment.

Response:

Please refer to Table 1 below in which FEI provides program area, program and measure MTRC results, as well as the portfolio blended TRC rate under the requested alternative potential ZEEA values. Please refer to the response to BCUC IR1 3.4 for why a ZEEA value of $54/MWh is not a reasonable option for the ZEEA and how $106/MWh remains appropriate for the purpose of this Application given the BCUC's current review of BC Hydro's IRP. However, as shown below, FEI's DSM Plan is also cost effective even if the BCUC ultimately is satisfied that BC Hydro's proposed LRMC of $65/MWh represents BC Hydro's LRMC.

As shown in the table below, only the Residential Home Renovation and the Residential New Home programs, containing many of FEI's most popular energy saving measures, use the MTRC cap in the 2023 DSM Plan. FEI's Low Income Program Area also relies on the ZEEA for calculating cost effectiveness, although it is not subject to the MTRC cap under the DSM Regulation.

Please note that while this information is provided at the measure level, FEI applies a portfolio approach to cost-effectiveness for its DSM Plan which is consistent with prior BCUC decisions. Most recently, in Decision and Order G-10-19, the BCUC concluded that it is appropriate to evaluate the benefit/cost ratios at the overall portfolio level.[3]

FEI's observations are:

- The current proposed DSM Plan uses a ZEEA value of $106/MWh and is cost-effective at the portfolio, program area and program level.
- At a ZEEA value of $65/MWh, the portfolio blended TRC falls from 1.4 to 1.0, but remains cost-effective, as do all program areas. The MTRC of the Home Renovation program stays cost-effective at 1.0, but the New Home program falls below 1.0 to 0.8.
- At a ZEEA value of $54/MWh, the portfolio blended TRC falls below 1.0 to 0.9. Both residential programs, and therefore the residential program area, are not cost-effective using the MTRC.
- No other Program Area or Program MTRC results fall below 1.0 using either alternative ZEEA values.
- Measure MTRC values of less than 1.0 in all scenarios are highlighted in red text. Measures that do not have savings associated with them (e.g., feasibility study) are not included in the table.

Table 1: Portfolio Blended TRC and Program Area, Program, and Measure MTRCs Using Current and Alternate ZEEA Values

	Current ZEEA	$65/MWh	$54/MWh
Portfolio Blended TRC	1.4	1.0	**0.9**

[3] Appendix A to Order G-10-19, page 9.

	Current ZEEA	$65/MWh	$54/MWh
MTRC of Program Areas			
Residential	1.6	1.0	**0.8**
Commercial	5.4	3.3	2.8
Industrial	14.2	8.7	7.3
Low Income			Not calculated
MTRC of Programs			
Res - Home Renovation (Uses MTRC cap in 2023 Plan)	1.7	1.0	**0.9**
Res - New Home (Uses MTRC cap in 2023 Plan)	1.3	**0.8**	**0.7**
Com - Prescriptive	6.7	4.1	3.4
Com - Performance Retrofit	5.1	3.1	2.6
Com - Performance New Construction	2.7	1.7	1.4
Com - RAP	12.8	7.8	6.5
Ind - Performance	8.7	5.3	4.4
Ind - Prescriptive	16.6	10.1	8.4
Ind - Strategic Energy Management	31.8	19.4	16.2
MTRC of Measures			
Res - Home Renovation			
Furnace	**0.9**	**0.5**	**0.4**
Communicating thermostat	3.7	2.3	1.9
Communicating thermostat - Retail	3.7	2.3	1.9
Boiler	**0.6**	**0.4**	**0.3**
Combination system	**0.8**	**0.5**	**0.4**
EnerChoice fireplace	18.4	11.3	9.4
Condensing storage tank water heater	1.7	1.0	**0.8**
Condensing tankless water heater	1.4	**0.8**	**0.7**
Attic insulation	3.3	2.0	1.7
Wall insulation	3.8	2.3	1.9
Crawlspace and basement insulation	3.1	1.9	1.6
Other insulation	2.8	1.7	1.4
Drain water heat recovery	2.6	1.6	1.3
Air sealing - Contractor incentive	2.5	1.5	1.3
Draftproofing - door sweeps and frame kits	1.0	**0.6**	**0.5**
Draftproofing - caulking, foam, tapes, foam rope	1.3	**0.8**	**0.7**
EnergyStar washer ($25)	5.1	3.1	2.6
EnergyStar dryer	3.9	2.4	2.0

	Current ZEEA	$65/MWh	$54/MWh
Showerheads and Aerators	33.9	20.7	17.3
High Performance Doors	**0.3**	**0.2**	**0.1**
Res - New Home			
STEP 2 (Single Family Dwelling)	1.2	**0.7**	**0.6**
STEP 2 (Townhome/Rowhome)	**0.9**	**0.6**	**0.5**
STEP 3 (Single Family Dwelling)	1.1	**0.7**	**0.6**
STEP 3 (Townhome/Rowhome)	**0.9**	**0.6**	**0.5**
STEP 4 (Single Family Dwelling)	1.1	**0.7**	**0.6**
STEP 4 (Townhome/Rowhome)	1.0	**0.6**	**0.5**
STEP 5 (Single Family Dwelling)	1.2	**0.8**	**0.6**
STEP 5 (Townhome/Rowhome)	1.2	**0.8**	**0.6**
Condensing Storage Tank Water Heater	1.9	1.2	1.0
Condensing Tankless Water heater	2.5	1.5	1.3
Combination Systems	**0.7**	**0.5**	**0.4**
Drain Water Heat Recovery	2.9	1.8	1.5
EnerChoice Fireplace	12.4	7.6	6.3
Communicating Thermostat	3.7	2.3	1.9
ENERGY STAR Dryers	4.4	2.7	2.2
Com - Prescriptive			
Condensing Boiler Heating Plant Optimization	8.2	5.0	4.2
Domestic Water Heater System Optimization	10.0	6.1	5.1
Condensing Volume boiler	2.7	1.6	1.4
Condensing tankless water heater	7.7	4.7	3.9
Food Services Efficiency Measures	11.9	7.3	6.1
Low flow spray valves	38.8	23.7	19.8
Condensing make-up air unit	11.0	6.7	5.6
Furnace replacement (Std & Mid)	1.4	**0.9**	**0.7**
HVAC Controls - Kitchen DCV	3.7	2.2	1.9
Condensing Unit Heaters	3.6	2.2	1.8
Vortex De-Aerators	4.4	2.7	2.2
Gas Underfired Broilers	18.8	11.5	9.6
Air Curtains	23.5	14.4	12.0
Pipe and Tank Insulation	1.7	1.1	**0.9**
Steam Boilers	19.1	11.7	9.7
Hybrid Systems	3.0	1.8	1.5
Gas Heat Pump	1.9	1.2	1.0

	Current ZEEA	$65/MWh	$54/MWh
Connected Thermostats	8.3	5.0	4.2
Boiler Additives	6.2	3.8	3.1
Com - Performance Retrofit			
Capital Upgrades - Retrofit	4.9	3.0	2.5
Recommissioning (Studies & O&M)	7.1	4.3	3.6
Commercial Energy Assessments	1.8	1.1	**0.9**
Com - Performance New Construction			
Step Code - Whole Building	2.7	1.6	1.4
Non-Step Code - Whole Building	2.7	1.6	1.4
Small Commercial New Construction	1.0	**0.6**	**0.5**
Com - RAP			
RAP - Energy Assessments (Common Area)	3.1	1.9	1.6
RAP - Condensing Boilers (Common Area)	8.2	5.0	4.2
RAP - Water Heaters (Common Area)	2.4	1.5	1.2
RAP - Recirculation Controls (Common Area)	12.6	7.7	6.4
1.5GPM Showerheads (Gas) (Unit)	135.0	82.5	68.8
1.5GPM Handheld Showerhead (Gas) (Unit)	57.4	35.1	29.2
1.5GPM Bathroom Aerators (Gas) (Unit)	382.9	234.0	195.0
1.5GPM Kitchen Aerators (Gas) (Unit)	185.3	113.3	94.4
Ind - Performance			
Technology Implementation	11.1	6.8	5.7
Ind - Prescriptive			
Process Boiler (Hot Water and Steam)	15.9	9.7	8.1
Air Curtains	31.3	19.1	15.9
Direct Contact Water Heater	17.6	10.7	9.0
Steam Traps Replacement	17.5	10.7	8.9
1" insulation 0.5-1" HW pipe	8.6	5.3	4.4
1" insulation ≥ 1" HW pipe	16.7	10.2	8.5
1" insulation 0.5-1" LPS pipe	19.3	11.8	9.8
1" insulation ≥ 1" LPS pipe	37.6	23.0	19.2
1" insulation 0.5-1" HPS pipe	33.7	20.6	17.2
1" insulation ≥ 1" HPS pipe	52.2	31.9	26.6
Tank Insulation 1" Low Temp	28.1	17.2	14.3

	Current ZEEA	$65/MWh	$54/MWh
Tank Insulation 1" High Temp	49.8	30.4	25.4
Tank Insulation 2" High Temp	34.3	20.9	17.5
Other Prescriptive Measures	19.9	12.2	10.2
Thermal curtains	6.8	4.2	3.5
Single Stage Infrared Heater	11.8	7.2	6.0
Two Stage Infrared Heater	11.8	7.2	6.0
Condensing Infrared Heater	14.9	9.1	7.6
Ind - Strategic Energy Management			
Individual, Large Customer	67.4	41.2	34.3
Cohort, Medium Customers	11.2	6.9	5.7

3.2 Please indicate the measures in each program area that would remain cost effective and those that would not be cost effective when using the alternative ZEEA values for the calculation of the mTRC.

Response:

Please refer to the table below which indicates which measures remain cost-effective using the alternative ZEEA values for the calculation of the MTRC.

Please note the following:

- When calculating cost-effectiveness at the measure level, program level non-incentive costs are excluded.
- Low Income programs use a modified version of the TRC. Therefore, a measure-level MTRC review of low income measures is not included in the table.
- In the row labelled “Measures with MTRC <1.0”, measures that are not cost-effective at the ZEEA value given in the column heading, but that are cost-effective at higher ZEEA values are shown underlined. For example, for the Home Renovation Program, “Condensing tankless water heater” is shown underlined in the $65/MWh ZEEA value column, as this measure is cost-effective at the current ZEEA value, but not at a ZEEA of $65/MWh.

Cost Effective and Non-Cost-Effective Measures under Alternative ZEEA Values

	Current ZEEA Value	$65/MWh	$54/MWh
Measures with MTRC benefit/cost ratio >=1.0	**Home Renovation:** • Communicating Thermostat • Fireplace • Condensing storage tank water heater • Condensing tankless water heater • Attic insulation • Wall insulation • Crawlspace and basement insulation • Other insulation • Drain water heat recovery • Air sealing • Draft-proofing - door sweeps and frame kits • Draft-proofing - caulking, foam, tapes, foam rope • EnergyStar washer • EnergyStar dryer • Showerheads and Aerators **New Homes:** • STEP 2 (Single Family Dwelling) • STEP 3 (Single Family Dwelling) • STEP 4 (Single Family Dwelling) • STEP 4 (Townhome/Rowhome) • STEP 5 (Single Family Dwelling) • STEP 5 (Townhome/Rowhome) • Condensing Storage Tank Water Heater • Condensing Tankless Water heater • Drain Water Heat Recovery • EnerChoice Fireplace • Communicating Thermostat • ENERGY STAR Dryers	**Home Renovation:** • Communicating Thermostat • Fireplace • Condensing storage tank water heater • Attic insulation • Wall insulation • Crawlspace and basement insulation • Other insulation • Drain water heat recovery • Air sealing • EnergyStar washer • EnergyStar dryer • Showerheads and Aerators **New Homes:** • Condensing Storage Tank Water Heater • Condensing Tankless Water heater • Drain Water Heat Recovery • EnerChoice Fireplace • Communicating Thermostat • ENERGY STAR Dryers	**Home Renovation:** • Communicating Thermostat • Fireplace • Attic insulation • Wall insulation • Crawlspace and basement insulation • Other insulation • Drain water heat recovery • Air sealing • EnergyStar washer • EnergyStar dryer • Showerheads and Aerators **New Homes:** • Condensing Storage Tank Water Heater • Condensing Tankless Water heater • Drain Water Heat Recovery • EnerChoice Fireplace • Communicating Thermostat • ENERGY STAR Dryers

	Current ZEEA Value	$65/MWh	$54/MWh
Measures with MTRC <1.0	**Home Renovation:** • Furnace • Boiler • Combination System • High Performance Windows **New Homes:** • STEP 2 (Townhome/Rowhome) • STEP 3 (Townhome/Rowhome) • Combination Systems	**Home Renovation:** • Furnace • Boiler • Combination System • High Performance Windows • Condensing tankless water heater • Draft-proofing - door sweeps and frame kits • Draft-proofing - caulking, foam, tapes, foam rope **New Homes:** • STEP 2 (Townhome/Rowhome) • STEP 3 (Townhome/Rowhome) • Combination Systems • STEP 2 (Single Family Dwelling) • STEP 3 (Single Family Dwelling) • STEP 4 (Single Family Dwelling) • STEP 4 (Townhome/Rowhome) • STEP 5 (Single Family Dwelling) • STEP 5 (Townhome/Rowhome) **Commercial Prescriptive:** • Furnace replacement **Commercial Performance:** • Small Commercial New Construction	**Home Renovation:** • Furnace • Boiler • Combination System • High Performance Windows • Condensing tankless water heater • Draft-proofing - door sweeps and frame kits • Draft-proofing - caulking, foam, tapes, foam rope • Condensing storage tank water heater **New Homes:** • STEP 2 (Townhome/Rowhome) • STEP 3 (Townhome/Rowhome) • Combination Systems • STEP 2 (Single Family Dwelling) • STEP 3 (Single Family Dwelling) • STEP 4 (Single Family Dwelling) • STEP 4 (Townhome/Rowhome) • STEP 5 (Single Family Dwelling) • STEP 5 (Townhome/Rowhome) **Commercial Prescriptive:** • Furnace replacement • Pipe and Tank Insulation **Commercial Performance:** • Small Commercial New Construction • Commercial Energy Assessments

1

3.3 Please provide an overall analysis of the effects on the cost-effective program areas and the overall portfolio of using alternative ZEEA values.

Response:

Please refer to the response to BCUC IR1 3.1.

3.4 Please explain FEI's perspective regarding the use of ZEEA values of (i) $54/MWh and (ii) $65/MWh for the purposes of calculating the mTRC.

Response:

FEI does not consider that a value of $54/MWh is appropriate for use as an LRMC value as BC Hydro has been clear that the $54/MWh is not its estimated LRMC, but simply the low end of a preliminary range of the cost of new wind resources, including delivery to the Lower Mainland, which is between $54 and $80/MWh. While BC Hydro used this value in its F2022 RRA for the purposes of its DSM expenditures schedule, it also confirmed that it was committed to updating its LRMC in its Integrated Resource Plan (IRP). Based on FEI's review of the BCUC's Decisions on BC Hydro's F2020-21 RRA (p. 144) and F2022 RRA (pp. 84-85), the BCUC did not accept the $54 as a true LRMC value, but rather, considered the low end of the range of wind resources as a conservative value, and was therefore satisfied on that basis to find that BC Hydro's DSM expenditure schedules were cost-effective. For these reasons, FEI does not consider the $54/MWh to have either been presented by BC Hydro or approved by the BCUC as BC Hydro's actual LRMC. As such, FEI does not consider $54/MWh to be a reasonable alternative for the LRMC. If anything, the entire range (rather than just the low end) of the cost of new wind resources, between $54 and $80/MWh, would be more indicative of the LRMC.

BC Hydro has now proposed an LRMC of $65/MWh in its IRP, but the IRP is still being reviewed and a decision will not be issued by the BCUC for some time. The DSM Regulation states that the ZEEA shall be a value that the BCUC is satisfied represents the LRMC of BC Hydro.[4] FEI considers that the BCUC would be understandably reluctant to determine that it was satisfied that BC Hydro's LRMC was $65/MWh in this proceeding, as this is a topic currently being reviewed by the Panel considering BC Hydro's IRP.

Given the above, FEI concludes that the best LRMC for the purposes of this Application remains the last LRMC value accepted by the BCUC, which was from BC Hydro's Waneta 2017 Transaction Application. However, as shown in FEI's response to BCUC IR1 3.1, FEI's total portfolio also remains cost-effective using BC Hydro's proposed LRMC of $65/MWh. Therefore,

[4] See DSM Regulation, section 4 (1.1)(a).

the BCUC can satisfied that FEI's proposal will be cost effective even if it ultimately is satisfied that BC Hydro's proposed LRMC of $65/MWh represents BC Hydro's LRMC.

FEI also considers it relevant that this is a transitional one-year plan to maintain consistency for customers across the existing DSM programs by maintaining traditional program and incentive levels, until there is more certainty with regards to future DSM programming as a result of provincial policy and possible changes to the DSM Regulation. Substantially changing FEI's residential programs for this one-year plan could result in market confusion and considerable ramp-up effort for what could be a limited time in market.

4.0 Reference: COST–EFFECTIVENESS

Exhibit B-1, Appendix A, p. 10; FEI Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 Decision and Order G-138-14 dated September 15, 2014 (FEI PBR Decision), pp. 257–258, 260

Utility Cost Test

On page 10 of Appendix A to the Application, Exhibit 6- Residential Natural Gas Savings and Cost-Effectiveness by Program shows that the Home Renovation and New Home programs do not pass the TRC or the utility cost (UCT) tests.

Exhibit 6 - Residential Natural Gas Savings and Cost-Effectiveness by Program

Program Area	Incremental Annual Gas Savings, Net (GJ)	NPV Gas Savings, Net (GJ)	TRC	MTRC	UCT	PCT	RIM
Home Renovation	210, 293	2,521,053	0.4	1.7	0.6	1.2	0.3
New Home	40,025	575,523	0.3	1.3	0.3	1.4	0.2
Non-Program Specific Expenses	-	-	-	-	-		
Total	250,319	3,096,575	0.4	1.6	0.5	1.2	0.3

On pages 257 and 258 of the FEI PBR Decision, the BCUC addressed the extent to which the BCUC should encourage FEI to focus on programs that reduce total utility costs.

On page 260 of the FEI PBR Decision, the BCUC stated:

> **…where appropriate, the Panel may consider the UCT as a checkpoint in evaluating EEC [energy efficiency and conservation] programs requiring the mTRC [modified total resource cost], along with other considerations including the ability of customers to participate in EEC programs.**
>
> The Commission Panel will not require that programs requiring the mTRC test also pass the UCT, as the Panel recognises that EEC programs which do not pass the UCT could nonetheless be considered appropriate for FEU to undertake because of their unquantified benefits (such as supporting BC emission reduction targets or other objectives of the BC Energy Plan). A low UCT could also result from energy savings that are hard to measure or low in the early years. However, a program with a low UCT could also indicate that an EEC program proposed may not be the most cost effective means of incenting customers to change their investment or consumption behaviours, and other programs could be more effective. For this reason, the Panel considers it appropriate that the result of the UCT test be considered, even if it is not determinative.
>
> **In evaluating the reasonableness of allocation of EEC funding between EEC programs that pass the TRC/mTRC, the Commission Panel determines**

that the UCT result is a relevant consideration. Other relevant considerations include providing broad opportunities for customers to participate, TRC/mTRC cost-effectiveness result, addressing 'lost opportunities' (e.g., new construction) and retaining a level of customer and trades engagement. Specifically, the Panel supports a focus on effectiveness in the management of the EEC portfolio. This includes a number of aspects, including ensuring that the most effective programs are pursued and an appropriate balance pursued in terms of different customers' ability to access EEC programs. [emphasis in original]

4.1 Please confirm, or explain otherwise, that the Home Renovation and New Home programs require the MTRC test.

Response:

Confirmed. The Home Renovation and New Home programs require the MTRC test as they do not pass the TRC.

4.2 Please explain the extent to which the Home Renovation Program helps to achieve, or has the characteristics of the following considerations outlined by the BCUC in the FEI PBR Decision: Unquantified benefits; hard to measure savings; providing broad opportunities for customers to participate; addressing lost opportunities; and, retaining a level of customer and trades engagement.

Response:

The Home Renovation Rebate Program (HRR) helps to achieve or has the characteristics of the following considerations outlined in the FEI PBR Decision: (1) unquantified benefits; (2) hard to measure savings; (3) provides broad opportunities for customers to participate; (4) addresses lost opportunities; and (5) retains a significant level of customer and trades engagement.

First, the program supports unquantified benefits, such as helping to achieve the GHG reduction targets in the CleanBC Roadmap, by providing a robust offering of incentives for different upgrade types, including building envelope and mechanical systems to achieve energy savings and GHG reductions in existing buildings.

Second, the program has hard to measure savings, specifically from the development of qualified contractor networks for insulation and fenestration contractors, and the required best practice for installation training. It is difficult to quantify the potentially greater savings associated with quality installation of building envelope upgrades in the absence of a baseline for the negative energy impacts due to improper installation, and subsequent influence on space heating system underperformance.

Third, the HRR has broad opportunities for customers to participate, as residential customers account for approximately 91 percent of FEI's over 1 million customers. The program is also offered in partnership with FBC, BC Hydro and BC's Ministry of Energy, Mines and Low Carbon Innovation (EMLI) to ensure participation is accessible and consistent for residential customers in existing homes across BC. Additionally, by creating multiple opportunities for customers to participate, the program increases access to energy efficiency for residential customers.

Fourth, the program addresses lost opportunities for achieving energy savings by enabling the prioritization of energy efficiency retrofits over decorative renovations which, in respect to customer choice and resource allocation, may not have otherwise come to fruition. Furthermore, the additional lost opportunity of quality installation is addressed through the prescriptive requirements of the program, ensuring mechanical systems are achieving optimal energy savings and equipment life.

Finally, the HRR provides an avenue for meaningful trades engagement on industry capacity building, best practices, and quality installation initiatives that drive the development of qualified contractor networks across industries. This in turn supports future market readiness for high performance homes. Continued engagement with trades through the HRR will be critical for growing contractor capacity to develop future DSM measures outlined in CleanBC's Roadmap, including hybrid heating, gas heat pumps and deep retrofits.

5.0 Reference: RESIDENTIAL PROGRAM AREA

Exhibit B-1, Appendix A, p. 9

Rental Apartment Efficiency Program

On page 9 of the Application, FEI states:

> The Rental Apartment Efficiency Program (RAP) will not be a program under FEI's Residential Program Area. The program has been consolidated under the Commercial Program Area. RAP is administered in collaboration with FBC. In this DSM plan, the program will be included under the commercial program area.

5.1 Please provide the reasons for the shift of the RAP from the Residential to the Commercial Program Area.

Response:

The existing division of the Rental Apartment Efficiency Program (RAP) program between the Residential and Commercial Program Areas has resulted in challenges for forecasting, reporting, and allocating program expenditures between the program areas. Shifting the residential component of the RAP to the Commercial Program Area is an administrative change to help address the challenges noted above and, at the same time, will create more alignment with FortisBC Inc.'s (FBC) RAP delivery.

5.2 Please clarify if the collaboration with FBC on the RAP predates the 2023 DSM Plan.

Response:

The collaboration between FEI and FBC on the RAP predates the 2023 DSM Plan and is unrelated to the shift of the RAP to the Commercial Program Area. FEI and FBC expect to continue their collaboration on the delivery of the RAP for FEI's 2023 DSM Plan.

5.3 Please elaborate on the nature of the collaboration between FEI and FBC in the implementation of DSM measures.

Response:

FEI and FBC's (together, FortisBC) Conservation & Energy Management department's integrated staff develop both natural gas and electricity efficiency programs, identifying DSM

1 measures and activities to serve both FEI and FBC customers. The expenditures associated
2 with the measure implementation for natural gas or electricity DSM programs are allocated
3 between FEI and FBC based on their respective energy source.

4

6.0 Reference: RESIDENTIAL AND COMMERCIAL PROGRAM AREAS

Exhibit B-1, Appendix A, pp. 12, 13, 15, 26

Incentives

On pages 12, 13, 15 and 26 of Appendix A to the Application, FEI includes the following exhibits:

- Exhibit 9 – Residential Home Renovation Program Details by Measure;
- Exhibit 12 – Residential New Home Program Details by Measure; and
- Exhibit 26 – Commercial RAP Program Details by Measure.

The table below includes a selection of data from program areas, including measures, incremental costs, and incentives.

Residential Program Area Measures

Program Area	Program Area	Measure	Incremental cost ($)	Incentives ($)
Residential	Home Renovation	EnerChoice Fireplace	132	600*
Residential	Home Renovation	ENERGY STAR Dryers	50	100
Residential	New Home	STEP 2 (Single Family Dwelling)	2,632	3,000
Residential	New Home	EnerChoice Fireplace	132	500
Residential	New Home	ENERGY STAR Dryers	50	100
Commercial	RAP	1.5 GPM Showerheads (Gas) (Unit)	4	19
Commercial	RAP	1.5 GPM Handheld Showerheads (Gas) (Unit)	12	19
Commercial	RAP	1.5 GPM Kitchen Aerators (Gas) (Unit)	1	9
Commercial	RAP	1.5 GPM Bathroom Aerators (Gas) (Unit)	2	9

Note: includes $100 of Contractor incentive

6.1 Please explain the rationale for FEI providing incentives greater than the incremental cost of the measure. Please include a discussion of any specific reasons associated with different program areas.

Response:

FEI considers multiple factors, in addition to incremental cost, when determining incentive levels for measures across various program areas. These factors include:

- Optimizing the adoption of the measure and potential energy savings;
- Assessing the overall cost-effectiveness of programs, which may encompass multiple measures;

- Engaging with key stakeholders such as contractors, customers, and interest groups to understand barriers and decision-making criteria; and
- Leveraging program expertise to ensure offers are comparable, accessible and consistent over time.

When designing a program, FEI considers the above factors and may propose providing incentives greater than the incremental cost of the measure as a result.

The table below lists the measures claiming savings that have incentives that are larger than their incremental cost and the reasons for each.

Program Area	Program	Measure	Incremental cost ($)	Incentives ($)	Reason for an incentive greater than the incremental cost
Residential	Home Renovation	EnerChoice Fireplace	132	600[1]	The incentive amount takes into consideration historical rebate amounts, and current industry feedback regarding rising costs and the minimum incentive required amount that would sway the purchase decision towards higher efficiency heating styles versus more decorative models designed for ambience.
Residential	Home Renovation	ENERGY STAR Dryers	50	100	The incentive amount is developed in collaboration with program partners, BC Hydro and FortisBC Inc. (FBC), based on providing an amount that would sway the purchase decision to choose an ENERGY STAR certified unit.
Residential	New Home	STEP 2 (Single Family Dwelling)	2,632	3,000	Incremental costs vary across the province based on availability of materials and trade costs, also through variations in building form. Setting a flat $3000 rebate for the Program allows for clear program communication and administration, while influencing a builder's decision to incorporate measures to improve the overall efficiency of a home.
Residential	New Home	EnerChoice Fireplace	132	500	Please refer to the reason above for Home Renovation, EnerChoice Fireplace.
Residential	New Home	ENERGY STAR Dryers	50	100	Please refer to the reason above for Home Renovation, ENERGY STAR Dryers.
Commercial	RAP	1.5 GPM Showerheads (Gas) (Unit)	4	19	RAP is offered as a direct install program and the measure level incremental cost is only one of the factors involved in the overall costs of the measures. The incentive value reflects the cost of both the equipment and its installation.
Commercial	RAP	1.5 GPM Handheld Showerheads (Gas) (Unit)	12	19	
Commercial	RAP	1.5 GPM Kitchen Aerators (Gas) (Unit)	1	9	
Commercial	RAP	1.5 GPM Bathroom Aerators (Gas) (Unit)	2	9	

1 *Note to Table:*

2 [1] Includes a $100 Contractor incentive.

6.2 Please elaborate why it is in the public interest for FEI to provide incentives for DSM measures that cover greater than 100 percent of the incremental cost of such measures.

Response:

Please refer to the response to BCUC IR1 6.1 for a discussion of why FEI provides incentives for DSM measures that cover greater than 100 percent of the incremental cost. FEI considers that including measures with incentives greater than the incremental cost is in the public interest when doing so optimizes participation to drive market transformation, achieves energy savings and GHG emissions reductions, and ensures overall programs are cost-effective, equitable and accessible to all customers. This was reflected in the BCUC's acceptance of FEI's 2019-2022 DSM Expenditures Plan, which included similar measures with incentives greater than incremental costs.

7.0 Reference: INDUSTRIAL PROGRAM AREA

Exhibit B-1, Appendix A, p. 32

Incentives

In Appendix A to the Application, FEI includes the following table: Exhibit 34 – Industrial Performance Program Details by Measure. Below is a table that extracts a selection of data from the program area, including measures, incremental costs and incentives.

Industrial Program Area Measures

Program Area	Measure	Incremental cost ($)	Incentives ($)
Performance	Technology Implementation	180,000	185,000

7.1 Please elaborate why it is in the public interest to provide incentives for DSM measures that cover over 100 percent of the incremental cost of such measures.

Response:

The stated incremental cost of $180 thousand for the Technology Implementation measure under the Industrial Performance Program Area in Exhibit 34 is in error and should be $211 thousand. The incentive amount is therefore lower than the incremental cost.

Please refer to the errata filed on October 3, 2022 for this correction.

8.0 Reference: LOW INCOME PROGRAM AREA

Exhibit B-1, Appendix A, pp. 42–43, 45

Incentives

In Appendix A to the Application, FEI includes the tables Exhibit 48 – Low Income Prescriptive Program Details by Measure and Exhibit 51 – Low Income Performance Program Details by Measure. Below is a table that extracts a selection of data from the program areas, including measures, incremental costs and incentives.

Industrial Program Area Measures

Program Area	Measure	Incremental cost ($)	Incentives ($)
Prescriptive	Furnace	1,900	2,404
Prescriptive	Condensing Storage Tank Water Heater	1,800	2,550
Prescriptive	Attic Insulation	1,326	1,922
Prescriptive	Ventilation		1,200
Prescriptive	Crawlspace and Basement Insulation	838	1,222
Prescriptive	Enerchoice Fireplace	132	750
Prescriptive	Appliance Maintenance		250
Prescriptive	Commercial - Condensing Tankless Water Heater	4,288	5,121
Prescriptive	Windows & Doors Tier 1	56	100
Prescriptive	Windows & Doors Tier 2	116	200
Performance	STEP 2 (Single Family Dwelling)	2,632	4,000
Performance	STEP 3 (Single Family Dwelling)	4,955	5,000
Performance	STEP 4 (Townhome/Rowhome)	7,761	8,000

8.1 Please elaborate why it is in the public interest to provide incentives for DSM measures that cover more than 100 percent of the incremental cost of such measures.

Response:

Please refer to the response to BCUC IR1 6.2 for an explanation of why FEI considers including measures with incentives greater than the incremental cost to be in the public interest.

Further, as detailed in the response to BCUC IR1 6.1, FEI considers multiple factors, in addition to incremental cost, when determining incentive levels for measures across various program areas. For example, for the Low Income Program Area, FEI focuses on accessibility for income

qualified customers, charities, and housing providers, including Indigenous housing providers. FEI endeavors to help customers overcome financial barriers to participating in DSM programs by supporting measure incentives which cover all or a greater portion of the total cost incurred to pursue energy efficiency and conservation. In addition, FEI also funds some measures which provide support and address health and safety components whereby incremental cost is not a relevant consideration.

9.0 Reference: DSM DRIVERS & CONSISTENCY WITH GOVERNMENT POLICY

Exhibit B-1, Section 3.1, p. 6

Energy Savings & GHG Emission Reductions

On page 6 of the Application, FEI includes Table 3-2: 2023 DSM Plan Energy Savings & GHG Emission Reductions.

Table 3-2: 2023 DSM Plan Energy Savings & GHG Emission Reductions

Indicator	Year	Total Natural Gas Savings	GHG Emission Reductions
Net Incremental Annual Gas Savings (GJ/yr) and GHG Reductions (t CO2e/yr)[1]	2023	1,601,386	82,632
NPV of Net Gas Savings (GJ/yr) and GHG Reductions (t CO2e)[2]		14,433,377	744,762

Notes to Table:

[1] Net incremental gas savings are after consideration of free ridership and spill over. GHG reductions are based on long run combustion emission factor of 0.0516 t CO2e/GJ for natural gas from Ministry of Environment & Climate Change Strategy.

[2] NPV in this context refers to including the entire stream of savings into the future (by measure life) and annualizing that to present time to show the total value of the stream of savings.

9.1 Please provide the formulas used for the calculation of the Net Present Value of Net Gas Savings (GJ/yr) and GHG Reductions.

Response:

Formula for Net Present Value of Net Gas Savings

Each measure's NPV of Net Gas Savings is the sum of discounted savings for each DSM plan year, using the following formula:

$$NPV = \sum_{t=0}^{t=L} A/(1+r)^t$$

Where:

- A = Annual Savings (GJ/yr)
- r = discount rate (%)
- L = Measure life (yr)

Please note that the NPV of Net Gas Savings should be expressed in GJ rather than GJ/yr as shown in Table 3-2. This formula provides a Net Present Value of Net Gas Savings in GJ (rather than GJ/yr).

The formula for Net Present Value of Net Gas Savings (GJ) is implemented via the Excel PV function. The function's syntax is:

PV(rate, nper, pmt)

Where:

- Rate = discount rate (in this case, Rate=Utility Discount Rate)
- Nper = total number of payment periods in a year (in this case, nper = Measure Life)
- Pmt = payment made each period (In this case, Net Annual Incremental Natural Gas Savings)

Each measure's yearly NPV of Net Gas Savings are then aggregated to estimate NPV of Net Gas Savings on a program, program area and portfolio level.

Formula for GHG Emission Reductions

The formulas for GHG emissions reduction in the DSM Plan are as follows:

Emissions Reduction in 2023 (tCO_2e) = (Emissions Factor (kg/GJ) x Net Incremental Gas Savings in 2023 (GJ)) /1000

Lifetime Emissions Reduction (tCO_2e) = (Emissions Factor (kg/GJ) x NPV of Net Natural Gas Savings (GJ)) /1000

Where:

- Emissions Factor = 51.6kg of CO_2e, or carbon dioxide equivalent, per GJ of natural gas saved
- tCO_2e = tonnes of CO_2e

10.0 Reference: CONSISTENCY WITH LONG-TERM GAS RESOURCE PLAN

Exhibit B-1, Section 3.4.1, p. 10

Incentive Levels

On page 10 of the Application, FEI states:

> The energy savings between the LTGRP [Long Term Gas Resource Plan] and DSM Plan are closely aligned. The energy savings achieved in the 2022 LTGRP High DSM Setting are 1.7 million incremental GJs while the DSM Plan energy savings are 1.6 million incremental GJs…
>
> The 2023 expenditures in the high DSM setting for the LTGRP are $235 million. While the 2023 DSM Plan total expenditures are lower at $141 million…
>
> The 2023 DSM Plan total expenditure is less than the LTGRP DSM high setting in 2023 for the following reasons:
>
> - The LTGRP analysis is a long-term outlook on DSM potential, using 2019 as a base year for its analysis. It does not consider program design that incorporates ramp up requirements for new measures and programs or potential ramp down of old measures.
> - The high DSM setting in the LTGRP assumed incentives covering up to 100 percent of incremental costs, or maximum market potential, in order to speed market transition and accelerate retrofits for energy and emission reductions, whereas for this transitional one-year 2023 period the DSM Plan focused more on optimizing the costs of energy savings and maintains an average incentive level which is closer to the historical benchmark of 50 percent of incremental cost for high efficiency equipment…

10.1 Please provide further explanation of why the focus of the 2023 DSM Plan is optimizing costs of energy savings. Please discuss reasons for the change in focus compared to the LTGRP.

Response:

For clarity, optimizing costs of energy savings is not the only focus of the 2023 DSM Plan, but rather, both optimizing costs and achieving energy savings are focuses of any DSM plan. In addition to optimizing costs of energy savings, FEI's decision to submit a one-year DSM plan in 2023 reflects uncertainty with regards to future DSM programming as a result of provincial policy and possible changes to the DSM Regulation. As explained further below, FEI's 2023 DSM Plan maintains incentive levels for measures that are currently in market.

While the focus of FEI's 2023 DSM Plan is not a departure from the analysis in the 2022 Long Term Gas Resource Plan (LTGRP), there are nonetheless inherent differences between the analysis undertaken in the 2023 DSM Plan and the 2022 LTGRP that must be considered. In

particular, the 2022 LTGRP and Conservation Potential Review (CPR) provide a theoretical model for FEI's long-term DSM programming outlook (i.e., an assessment of the energy savings that can be achieved over a 20-year planning horizon) and do not necessarily factor in the shorter-term implications of market conditions and policy environment changes affecting DSM program design considerations.

Ultimately, the 2022 LTGRP recommends increasing incentive levels into the future to adjust to evolving policy and increase the contribution of DSM to carbon reductions as part of FortisBC's Clean Growth Pathway, whereas the 2023 DSM Plan continues to provide traditional program and incentive levels as FEI transitions to more advanced DSM activities. Substantially changing incentive levels could result in market confusion and considerable ramp-up effort for what could be a limited time in market.

10.2 Please further explain why there is a significant difference between the assumed incentives in the LTGRP and the incentives in the 2023 DSM Plan required to achieve similar levels of savings.

Response:

Please refer to the response to BCUC IR1 10.1. Please also refer to the responses to BCOAPO IR1 4.1, 4.2 and 4.3 for further discussion of the comparison between the 2022 LTGRP and 2023 DSM Plan.

10.3 Please explain whether the analysis in the LTGRP takes into account FEI's historical incentive levels.

Response:

Yes, FEI's historical incentive levels are a consideration in the LTGRP analysis. In the 2021 CPR and the 2022 LTGRP, alternative measure incentive settings were examined, including: (1) a 50 percent incentive setting (which is generally representative of FEI's historical incentive levels); (2) a 100 percent incentive setting; and (3) variable incentive settings. The 50 percent incentive is representative of FEI's traditional DSM program design, but as described above, was just one of the incentive level settings examined. As stated in Section 5.4.5 in the 2022 LTGRP:

> In the current DSM environment, incentive levels are on average set at about 50 percent of incremental costs for the upgrade. These ratios vary per measure, per program and per program area.

Please refer to Table 5-3 from FEI's 2022 LTGRP, reproduced below, which sets out the DSM settings and associated incentive levels.[5]

Table 5-3: DSM Settings

	Taper Off	Low	Medium UCT	Medium	High
Description	Assumes DSM spending tapers off as the province electrifies	Constrained to include only the most cost-effective measures. Only 50% incentive level is used, and measures must pass TRC > 1 (no MTRC).	Any incentive level is permitted, but measures must pass UCT > 2 and MTRC or TRC >1. This represents more efficient budget spending.	Similar to the 2021 CPR's medium market potential scenario where adoption of measures is based on incentives covering 50% of a measure's incremental cost	Similar to the 2021 CPR's high market potential scenario where adoption of measures is based on incentives covering 100% of a measure's incremental cost
Incentive Level	Any incentive level is permitted	50% of measure incremental cost	Any incentive level is permitted	50% of measure incremental cost	100% of measure incremental cost
Economic Screen	Passes either TRC>1 or MTRC>1	Passes TRC>1	Passes TRC>1 or MTRC>1 and UCT>2	Passes TRC>1 or MTRC>1	Passes TRC>1 or MTRC>1
Budget Setting	Budget limited to 50% of 2022 spending in 2023, declining to 25% of 2022 spending by 2042	No budget limit applied	No budget limit applied	No budget limit applied	No budget limit applied

10.4 Please estimate the forecasted energy savings in 2023 if FEI had designed its programs, as outlined in the 2023 DSM plan, covering up to 100 percent of incremental costs.

Response:

As outlined in Section 3.4.1 of the Application, the energy savings estimated in the High DSM setting (100 percent incentives) in the 2022 LTGRP Diversified Energy (Planning) Scenario present a high-level view of such a scenario, resulting in 1.7 million incremental GJ, compared to the DSM Plan energy savings of 1.6 million incremental GJ. The increase in program uptake that might be achieved by effectively doubling the incentives from current levels is difficult to ascertain. However, FEI's only estimate is the 1.7 million incremental GJ based on the High DSM setting in the 2022 LTGRP.

[5] FEI 2022 LTGRP Regulatory Proceeding, Exhibit B-1 (May 9, 2022), 2022 LTGRP, Table 5.3 and Section 5.3.3, page 5-11 – available online at https://www.bcuc.com/OurWork/ViewProceeding?applicationid=1000.

The 2023 DSM Plan did not examine 100 percent incentives in more detail at the program planning level for the reasons discussed in the response to BCUC IR1 10.1. The 2023 DSM Plan continues to provide traditional program and incentive levels as FEI transitions to more advanced DSM activities. Substantially changing incentive levels for these traditional programs at this time could result in market confusion and considerable ramp-up effort for what could be a limited time in market during a time of uncertainty in market conditions (supply chain issues and labour shortages) and evolving energy policy/regulation.

Please refer to the response to BCOAPO IR1 4.1 for further discussion of the comparison between the 2022 LTGRP and 2023 DSM Plan.

B. 2021 DSM ANNUAL REPORT

11.0 Reference: 2021 DSM ANNUAL REPORT

Exhibit B-1, Appendix B (2021 Annual DSM Report), p. 9

Collaboration and Integration

On page 9 of the 2021 Annual DSM Report, FEI states:

> FEI, FBC and EMLI continued to collaborate in 2021. FEI's collaboration with EMLI [BC Ministry of Energy, Mines and Low Carbon Innovation] on CleanBC programs includes administering incentives and enabling applications for CleanBC rebates through FEI's application processes to provide a streamlined customer experience. The tables contained throughout this Annual Report include only expenditure and savings information for FEI's expenditure portfolio. They do not include the CleanBC expenditures nor the savings attributed to the CleanBC incentives. In 2021, CleanBC incentives were administered alongside FEI incentives in the Residential Home Renovation Rebate Program, the Low Income Prescriptive and Support Programs, and the Commercial Existing Building Performance Program as noted in Sections 5, 6 and 7 respectively.

11.1 Please explain how FEI determines the amount of incentive required, where EMLI is also providing incentives. Please also discuss how savings are allocated between FEI and EMLI.

Response:

Please refer to the response to BCUC IR1 6.1 for the factors FEI considers in determining the appropriate amount of incentive required. This approach is also used when the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) provides an incremental incentive in addition to FEI's incentive. The additional incentive from EMLI is intended to attract more participants.

With respect to energy savings, in a joint incentive scenario, savings are allocated based on the percentage of funding being provided by each entity for the incremental participation. Incremental participation is based upon a predetermined, mutually agreed upon baseline.

In situations where FEI and EMLI do not offer joint incentives, savings are allocated entirely to the entity providing the incentive funding.

12.0 Reference: 2021 DSM ANNUAL REPORT

Exhibit B-1, Appendix B, pp. 13, 15

New Home Program

FEI notes on page 15 of Appendix B to the Application that Actual participation in the New Home Program amount to 4,506 compared to Plan participation of 7,105 (63 percent of forecast participation).

FEI notes Actual savings of 31,587 GJ in Table 5-2 on page 13 of Appendix B to the Application, compared to Plan savings of 26,323 GJ.

12.1 Please explain how FEI was able to achieve savings above plan, while participation was substantially below plan. Please provide supporting details to explain the above results.

Response:

Actual savings for the New Home Program were compared and reported against the revised participation numbers submitted in the Application for Additional Demand Side Management Expenditures for 2021 and 2022 for Residential and Low Income (G-301-21). In order to ensure consistency across program areas, the original participation numbers from the 2019-2022 DSM Plan were used in FEI's 2021 DSM Annual Report.

Actual participation exceeded revised participation for almost all measures in 2021, which translated to achieving savings above the "2021-2022 Revised Forecast" (as per the Application for Additional Demand Side Management Expenditures for 2021 and 2022 for Residential and Low Income).

The table below provides a breakdown of forecast versus actual participation for each measure.

Participation			
Measure	**2019-2022 DSM Plan**	**2021-2022 Revised Forecast**	**2021 Actual**
BC Energy Step Code - Whole Home			
STEP 2 (Single Family Dwelling)	350	150	206
STEP 2 (Townhome/Rowhome)	110	20	70
STEP 3 (Single Family Dwelling)	960	480	646
STEP 3 (Townhome/Rowhome)	410	220	383
STEP 4 (Single Family Dwelling)	115	125	134
STEP 4 (Townhome/Rowhome)	50	185	70
Space and Water Heating Systems			
0.67 EF Storage Tank Water Heater	210	25	126
Tankless Water Heater	860	800	1021
Condensing Storage Tank Water Heater	290	150	119
Combination System	700	400	483
Secondary Heating			
EnerChoice Fireplace	1850	940	937
Direct Vent Wall Furnace	150	0	0
Other			
Drain Water Heat Recovery	200	100	15
Communicating Thermostat	750	400	591
HVAC Zone Controls	50	0	0
ENERGY STAR Dryer	50	100	452
TOTAL	**7,105**	**4,095**	**5,253**

12.2 Please discuss whether the results in 2021 impacted FEI's forecast for the New Home Program in 2023.

Response:

Historical program trends, including 2021 participation results, were a primary input among the factors considered when developing the 2023 New Home Program participant forecast.

13.0 Reference: 2021 DSM ANNUAL REPORT

Exhibit B-1, Appendix B, pp. 12, 13, 16

Rental Apartment Efficiency

Table 5-1 on page 12 of Appendix B to the Application shows 2021 Actual expenditures of $175,000 compared to 2021 Plan expenditures of $431,000 (40 percent of Plan).

Table 5-2 on page 13 of Appendix B to the Application shows 2021 Actual savings of 8,287 GJ compared to 2021 Plan savings of 23,935 GJ (35 percent of Plan).

FEI notes on page 16 of the Appendix B to the Application that, "2021 was another challenging year for the Rental Apartment Efficiency Program with the COVID-19 pandemic continuing to dampen participation in this program."

FEI also notes on page 16 that none of the communications budget for Rental Apartment Efficiency was used.

13.1 Please discuss why actual expenditures on the Rental Apartment program were lower than planned.

Response:

The Rental Apartment Efficiency Program (RAP) is currently divided between the Residential and Commercial Program Areas. The in-suite measures are reflected in the Residential Program Area, while any common area and non-in-suite measures are included in the Commercial Program Area. Table 5-1 on page 12 and Table 5-2 on page 13 of the Application only reflect the expenditure and savings attributable to the Residential Program Area (i.e., in-suite direct install measures) for RAP in 2021.

As noted in the preamble and explained on page 16 of Appendix B to the Application, the COVID-19 pandemic continued to dampen participation in this program. FEI paused its in-suite direct installs at the start of the pandemic and resumed this activity in August 2021, with a limited number of units per day in a single building. Even during this time, there was a significant degree of pandemic-related concern among building owners and residents which inhibited in-suite direct installations.

13.2 Please explain why no money was spend on communication during 2021, and any plans to address this in future.

Response:

As discussed in the response to BCUC IR1 13.1, the COVID-19 pandemic continued to inhibit in-suite access in rental apartments during 2021, thereby hindering FEI's ability to install RAP in-suite measures. As such, FEI did not invest in promoting and advertising in-suite direct install measures, which are accounted for under RAP in the Residential Program Area in 2021.

For clarity, FEI spent $34 thousand under RAP in the Commercial Program Area to promote and advertise RAP in 2021. These expenditures used RAP's communication budget in the Commercial Program Area, as per the Expenditures table on page 27 of Appendix B to the Application.

In 2022, FEI resumed in-suite direct install measure promotion and marketing.

13.3 Please discuss whether the results in 2021 impacted FEI's forecast for the Rental Apartment program in 2023.

Response:

The results in 2021 for the residential component (i.e., in-suite direct install measures) of Rental Apartment Efficiency Program (RAP did not impact FEI's forecast for 2023. FEI believes that the results in 2021 continued to be influenced by the prolonged effects of the COVID-19 pandemic, and therefore, FEI did not base its 2023 forecast upon the 2021 results.

14.0 Reference: 2021 DSM ANNUAL REPORT

Exhibit B-1, Appendix B, pp. 24-25

Commercial – Prescriptive Program

On page 24 of Appendix B to the Application, FEI states that FortisBC Inc. (FBC) is a partner in the Prescriptive Program, described as providing "rebates for the installation of high efficiency natural gas burning equipment, heat-loss reduction items and controls."

14.1 Please explain why FBC is a partner of a program providing rebates for gas burning equipment.

Response:

The Commercial Prescriptive program presented in the Application is part of an overarching prescriptive program that includes natural gas and electricity saving measures with the electricity saving measures being presented exclusively in FBC's 2023-27 DSM Plan.

FortisBC's Conservation & Energy Management (C&EM) department is an integrated organizational structure with staff working on both natural gas and electricity efficiency programs to serve both FEI and FBC customers. FEI and FBC share infrastructure and human resources in developing and offering energy efficiency programs for both utilities.

All the measures, savings and expenditures, including labour costs, are tracked separately between FEI and FBC for their respective programs and are exclusively reported in their respective DSM annual reports.

Further, on page 24 of the Application, FEI states that 2021 Actual expenditures amounted to $9,622, compared to plan expenditures of $8,377 (115 percent of planned expenditure).

On page 25 of the Application, FEI shows actual participation of 967, a quarter of plan participation of 4,429 (22 percent of forecast participation).

Table 7-2 on page 24 of Appendix B to the Application shows actual gas savings of 182,109 GJ for 2021, compared to 188,100 GJ plan savings for the Commercial Prescriptive Program.

14.2 Please explain how expenditures were higher than plan, and savings slightly below target, while participation was a quarter of plan.

Response:

FEI believes that it has achieved its goal of reaching the planned energy savings using the accepted expenditures in 2021 in the Commercial Prescriptive program. In preparing its 2019-2022 DSM Expenditure Plan in 2018, FEI used its best knowledge of energy efficiency measures and available data to forecast participation rates for each measure. While the actual number of participants will differ from the planned numbers due to market conditions and unexpected external events, such as the global COVID-19 pandemic, FEI is of the view that deviation from planned participation rates at the measure level is inevitable.

Although the actual total program participation was a quarter of planned participation for 2021 for the Commercial Prescriptive program as a whole, FEI incentives supported customer projects that were much larger in scope than originally anticipated, achieving the planned expenditures and savings with fewer participants.

14.3 Please provide the planned TRC for 2021, compared to the actual TRC achieved, providing all supporting calculations.

Response:

Please refer to the table below for the planned Total Resource Cost (TRC) for 2021 compared to the actual TRC achieved in 2021 for the Commercial Prescriptive Program:

	Total Resource Cost (TRC)
2021 Planned TRC for FEI's Commercial Prescriptive Program	1.3
2021 Actual TRC Achieved for FEI's Commercial Prescriptive Program	1.9

FEI calculated the TRC using the following formula:

$$\text{TRC} = \frac{(\text{Net Present Value of Avoided Natural Gas} \times \text{Net to Gross Ratio}) + (\text{Net Present Value of Avoided Alternative Energy Sources} \times \text{Net to Gross Ratio})}{(\text{Net Present Value of Incremental Measure Cost} \times \text{Net to Gross Ratio}) + \text{Net Present Value of Program Administration Cost}}$$

- 2021 Planned TRC of 1.3 for FEI's Commercial Prescriptive Program is calculated as below:

$$= \frac{(\$33{,}557.9 \times 0.84) + (\$5{,}961.6 \times 0.84)}{(\$28{,}769.5 \times 0.84) + \$1{,}312.5} = 1.3$$

Please note Net Present Value inputs ($) are all presented in $000s format.

- 2021 Actual TRC Achieved for FEI's Commercial Prescriptive Program is calculated as below:

$$= \frac{(\$20{,}694.4 \times 0.79) + (\$607.2 \times 0.79)}{(\$9{,}691.1 \times 0.79) + \$1{,}326} = 1.9$$

Please note Net Present Value inputs ($) are all presented in $000s format.

14.4 Please discuss whether the results in 2021 impacted FEI's forecast for the Commercial prescriptive program in 2023.

Response:

The Commercial Prescriptive program experienced close to a typical year in 2021, as the results were not significantly influenced by the COVID-19 pandemic. Therefore, the 2021 and previous years' results were considered in developing the forecast for 2023.

C. APPROVALS SOUGHT

15.0 Reference: ADDITIONAL APPROVALS SOUGHT

Exhibit B-1, Section 7.1.1, p. 29

Funding Transfers

On page 29 of the Application, FEI states that it is proposing the following change to the funding transfer rules:

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

15.1 Please discuss why FEI is seeking this change, including any challenges experienced by FEI to date connected to the required approval for the transfer of funds into a program area. Please provide specific examples, if possible.

Response:

FEI is seeking this change to the funding transfer rules in order to simplify the requirements for approval of changes to DSM program area funding, allow for greater flexibility for FEI in responding to market changes that are difficult to forecast in advance, and to ensure that FEI is able to focus on delivering DSM programs to customers without interruption. FEI believes that the change to the transfer funding rules enables FEI to achieve all these things, while still ensuring BCUC oversight of its DSM performance and minimizing the time and resources required of FEI, the BCUC, and stakeholders to prepare, file, and review applications for funding transfers.

The proposed change to the funding transfer rules ensures that no program area will have its funding **reduced** by greater than 25 percent without BCUC approval. This ensures that FEI can react to and meet increased activity in a program area quickly and easily, while still ensuring that no other program area will have its funding reduced drastically as a result.

Throughout the 2019-2022 DSM Plan period, FEI has filed a number of applications for acceptance of funding transfers greater than 25 percent. Certain of these applications would not have been required or would have been simplified with the change to the transfer rules proposed in this Application. For example:

- On September 18, 2019, FEI filed a funding transfer application requesting approval to transfer funds **into** the Industrial Program Area greater than 25 percent of that Program Area's budget. The funds were to be transferred from the Residential and Commercial Program Areas but did not exceed 25 percent of those program area budgets.
- On October 16, 2020, FEI filed a funding transfer application requesting approval to transfer funds **into** the Industrial Program Area greater than 25 percent of that Program Area's budget. The funds were to be transferred from other program areas but would not exceed 25 percent of those program area budgets.
- On October 5, 2021, FEI filed a funding transfer and overspend application requesting approval (among other things) to transfer funds exceeding 25 percent **into** the Residential Program Area.
- On March 31, 2022, FEI filed a funding transfer application concurrently with its 2021 Annual DSM Report requesting approval of a transfer greater than 25 percent **into** the Portfolio Level Activities Program Area.

During each year of the DSM Plan period, FEI spends significant time and resources determining strategies to manage increased expenditures due to higher customer demand in a program area given the current transfer rules. As noted above, the proposed change to the funding transfer rules would simplify FEI's forecasting process and allow more focus on the delivery of programs to customers.

FEI notes that it will continue to report funding transfers into and out of program areas in its annual DSM reporting.

15.2 Please provide an analysis showing the maximum amount of funding that could potentially be transferred into a program area, based on the filed 2023 DSM Expenditure Schedule, in both dollars and as a proportion of the program area receiving the funds.

Response:

FEI provides the requested analysis for the 2023 DSM Plan in the below table. The table includes a column setting out the maximum funds that could, in theory, be transferred out of a program area without approval from the BCUC under the proposed transfer rule change. However, the maximum amounts shown for any individual program area could only occur if **all other** program areas are seeing lower than forecast activity and the maximum (25 percent) of all of those other area's spending is transferred into a single program area, which would need to be seeing significantly higher than forecast activity. This is an extremely unlikely scenario.

Program Area		Maximum Transfer In		2023 Maximum Transfer Out
	2023 Budget	($000s)	%	($000s)
Residential	$43,994	$24,271	55%	$10,999
Commercial	$26,570	$28,627	108%	$6,643
Industrial	$6,848	$33,557	490%	$1,712
Low Income	$13,251	$31,956	241%	$3,313
Conservation Education and Outreach	$9,713	$32,841	338%	$2,428
Innovative Technologies	$25,960	$28,779	111%	$6,490
Enabling Activities	$12,010	$32,267	269%	$3,003
Portfolio Activities	$2,730	$34,587	1267%	$683

As noted above, the maximum transfer values shown in the table above are extremely unlikely ever to occur and FEI considers them theoretical only. FEI notes the following:

- FEI will only transfer funds out of a program area if those funds are not needed in that program area due to lower than forecast activity **and** those funds could be appropriately used in another program area in that year.
- The expenditure levels for each program area reflect FEI's best forecasts. It is extremely unlikely that market conditions would change so drastically that FEI would need funds from every other program area to meet market demand.
- FEI's past performance shows that actual DSM spending in each program area generally mirrors accepted budget levels closely. This is evidenced in FEI's annual DSM reporting throughout the 2019-22 DSM Plan period. Where FEI has determined that its forecasts have changed to a degree where transfers greater than 25 percent into or out of a program area are required, FEI has filed separate applications requesting approval to change those budgets.[6]

15.3 Please explain whether FEI has considered other alternative mechanisms for funding transfer processes.

Response:

FEI considered other mechanisms for funding transfer processes, such as: (1) including funding transfer requests in the existing annual DSM reporting process; and (2) having a separate reporting process updating forecasts. FEI determined that the first mechanism was too early in the year to be effective, as the need for a funding transfer often occurs near the end of the year,

[6] FEI filed an application seeking acceptance of changes to its accepted 2021 and 2022 DSM budgets for the Commercial, Industrial and Innovative Technologies Program Areas on March 29, 2021, and filed an application requesting acceptance of changes to its accepted 2021 and 2022 DSM budgets for the Residential and Low Income Program Areas on July 2, 2021.

and that the second option added additional regulatory requirements that might not be necessary if, in the end, a funding transfer is not required.

FEI determined that the funding transfer rules with the requested changes will provide the best flexibility for FEI while still ensuring adequate oversight of FEI's DSM spending.

15.4 Please elaborate on the role of the Energy Efficiency and Conservation Advisory Committee (EECAG) when considering the need for program funding transfers. Please discuss the extent to which FEI considers consultation with EECAG could affect regulatory process concerning funding transfers.

Response:

FEI makes best efforts to communicate with EECAG members (either by meeting or through email) regarding funding transfers that may be required and before making applications to the BCUC regarding those program area funding transfers. FEI will continue to take EECAG feedback on potential funding transfer applications into consideration before making its request to the BCUC.

Consultation with EECAG positively impacts the regulatory process for funding transfer applications as there is significant overlap between EECAG members and intervener groups. Therefore, any interveners to a transfer application are likely to already be aware of the application's contents, FEI's rationale for making the application, and will have had a previous opportunity to provide feedback through the consultation process.

Ultimately, FEI believes that the role of the EECAG results in a more effective and efficient regulatory process.

16.0 Reference: ADDITIONAL APPROVALS SOUGHT

Exhibit B-1, Section 7.1.2, p. 30

Total Portfolio Variance Allowance

On page 30 of the Application, FEI states:

> FEI is seeking approval of an allowed variance above the accepted DSM expenditure amount in the final year of a DSM expenditure schedule without prior approval from the BCUC. In the case of the 2023 DSM Plan, FEI is proposing that actual DSM expenditures may exceed 2023 accepted DSM expenditures by no more than five percent without prior approval from the BCUC. This means that FEI has additional flexibility to overspend 2023 approved expenditures by $7.1 million.

16.1 Please provide the rate impact of this proposed variance, in the event that FEI exceeds the approved expenditures by the full 5 percent.

Response:

Please refer to Table 1 below which shows that the rate impact in 2024 would be 0.05 percent if the 2023 expenditures are overspent by 5 percent (i.e., approximately $7.1 million) when compared to FEI's 2023 proposed revenue requirements. For the average residential customer with consumption of 90 GJ per year, this is equivalent to a bill impact of approximately 70 cents for 2024.

Table 1: Rate Impact of 5% overspend in 2023 Expenditure

Line	Particular	Reference	2023	2024
1	**Rate Base DSM Deferral Account**			
2	Opening ($000s)	Prior Year, Line 8	-	-
3	Adjustments	Transfer from non-rate base	-	5,290
4	Gross Additions		-	-
5	Tax	-Line 4 x 27%	-	-
6	Net Additions	Line 4 + Line 5	-	-
7	Amortization	Amortization Period @ 10 years	-	(529)
8	Closing ($000s)	Line 2 + Line 6 + Line 7	-	4,761
9				
10	Mid-Year Rate Base ($000s)	(Line 2 + Line 8) / 2	-	5,025
11				
12	**Non-Rate Base EEC Incentive Deferral**			
13	Opening Deferral	Prior Year, Line 19	-	5,290
14	Adjustments	Transfer to rate base	-	(5,290)
15	Gross Additions		7,054	-
16	Tax	-Line 15 x 27%	(1,905)	-
17	AFUDC	((Line 15 + Line 16) / 2) x 5.46%	140	-
18	Net Additions	Line 15 + Line 16 + Line 17	5,290	-
19	Closing Deferral	Line 13 + Line 14+ Line18	5,290	-
20				
21				
22	**Incremental Revenue Requirement**			
23	Amortization	-Line 7	-	529
24	Earned Return	Line 10 x FEI's Rate Base Return @ 6.22% (2023 Proposed)	-	313
25	Income Tax Expense	(Line 10 x 8.75% x 38.5% + Line 23) / (1 - 27%) x 27%	-	258
26	Total ($000s)	Sum of Line 23 to 25	-	1,100
27				
28	2023 Proposed Revenue Requirement ($000s)	2023 Annual Review (July 29, 2022)	2,170,241	2,170,241
29	Incremental Rate Impact (%)	Line 26 / Line 28	0.00%	0.05%

FEI notes, as part of the Application, FEI proposed to record $60 million to the rate base DSM deferral account, effective in 2023, with the remaining balance of the DSM expenditure recorded in the non-rate base DSM deferral account. As such, the 5 percent variance would be captured in the non-rate base DSM deferral account only which will be transferred to the rate base DSM deferral account in the subsequent year for recovery from customers through amortization and would have no impact to the 2023 rates. For clarity, as part of FEI's ongoing 2023 Annual Review process, FEI forecast $60 million as additions to the rate base DSM deferral account with the remaining amount based on the 2023 proposed DSM expenditure level forecast to the non-rate base DSM deferral account. Since it is assumed the actual DSM expenditures in 2023 would be at least $60 million, any variance will be reflected in the non-rate base deferral account only.

16.2 Please explain the proposed accounting treatment of the 5 percent variance in the event of an overspend, along with supporting rationale.

Response:

Please refer to the response to BCUC IR1 16.1.

16.3 Please clarify if this $7.1 million could in theory be applied to a single program, or explain otherwise.

Response:

Yes, in theory, the allowed variance of $7.1 million above the accepted DSM expenditure could be applied to a single program. However, if FEI is required to use the 5 percent variance in program expenditures, it would likely be a result of the sum of several programs and program areas exceeding their respective DSM Plan expenditures.

16.4 Please discuss if FEI considered increasing the amounts in the expenditure schedule by 5 percent for the 2023 DSM Expenditures, as an alternative to the variance allowance. Please discuss any pros and cons of this approach.

Response:

No, FEI did not consider increasing the expenditure forecast by 5 percent to account for variances as forecasting variances can be both greater or lower than plan. FEI will manage its DSM programming based on its plan expenditures, and therefore, does not expect to spend the additional $7.1 million unless it is required. Further, since the effect of the BCUC approving an additional 5 percent margin on top of the requested DSM Plan spending is the same as approving a 5 percent overspend without preapproval, FEI sees no appreciable difference in the two options.

17.0 Reference: ADDITIONAL APPROVALS SOUGHT

Exhibit B-1, Section 7.3, p. 31, Appendix A, p. 66; BCUC's Regulatory Account Filing Checklist dated May 3, 2017

2023 DSM Expenditure Schedule Deferral Account

On page 31 of the Application, FEI states that it "is also seeking approval within this Application of a rate base deferral account to capture the regulatory costs associated with the review of this Application and proposes to amortize the costs over one-year starting in 2023 to match the time period that the DSM Plan will be in place."

On May 3, 2017, the BCUC published a Regulatory Account Filing Checklist to facilitate an efficient review of regulated entities' applications for regulatory accounts (often called deferral accounts).[7]

On page 66 of Appendix A to the Application, FEI defines the activities included in the Portfolio Level Activity. FEI states:

> These activities are distinct from Enabling Activities. These distinct Portfolio Level Activities include expenditures such as DSM support and portfolio level staff labour, staff training and conferences, facilities and equipment, industry association memberships, regulatory work and EECAG activities. Portfolio-level activities are required to properly plan and implement the proposed DSM programs and support efforts to meet the energy savings targets. [Underline added]

17.1 Please explain why a rate base account is proposed versus a non-rate base account, in the context of the regulatory costs proposed to be amortized.

Response:

FEI has requested to capture costs associated with this Application in a rate base deferral account as it is consistent with requests and approvals for other similar regulatory proceeding cost deferral accounts and for past DSM application proceedings.

17.1.1 Please discuss and quantify the impact to the proposed deferral account's carrying costs, if any, if the regulatory costs were captured in a rate base account versus a non-rate base account.

[7] https://docs.bcuc.com/documents/Guidelines/2017/05-03-2017_RegulatoryAccountFilingChecklist.pdf.

Response:

FEI is proposing a rate base deferral account to capture costs related to this Application. Rate base deferral accounts are included in rate base, and therefore, are implicitly financed using the weighted average cost of capital (WACC). Alternatively, if FEI had proposed a non-rate base deferral account, it would have requested the account be financed with a WACC return. Therefore, there would be no difference in the carrying costs between a rate base and non-rate base deferral account.

17.2 Please explain why a similar regulatory account was not requested for FEI's 2019 to 2022 DSM Expenditures Application and why the previous accounting treatment for the regulatory costs should not be continued.

Response:

Similar regulatory accounts have been requested and approved in the past for FEI to capture application costs related to DSM expenditures. Specifically, FEI received approval to establish the 2019-2022 DSM Expenditures Application rate base deferral account as part of the Annual Review for 2019 Delivery Rates Decision and Order G-237-18.

17.3 Please identify any alternate treatments that were considered, including an overview of what the accounting treatment would be in the absence of approval of the request to establish a regulatory account, and explain why these alternate treatments may not be appropriate.

Response:

In the absence of deferral accounts for regulatory proceedings, the costs of regulatory proceedings would have to be forecast as an O&M expense (outside of the MRP formula O&M since regulatory proceeding costs are not included in the Base O&M Expense) and trued up annually by way of the Flow-through deferral account. FEI considers this to be a more cumbersome and less efficient means of accounting for regulatory proceeding costs. It also does not allow for amortization of the costs over multiple years, as is often appropriate to ensure proper matching.

It is accepted regulatory practice to defer the costs of regulatory applications for review and recovery following the regulatory review of the application itself. Review and recovery after the completion of the regulatory process allows for more transparency as the history of the costs is simpler to track and report on.

17.4 Please address the following as necessary:

a) whether, or to what extent, the item is outside of management's control;

b) the degree of forecast uncertainty associated with the item;

c) the materiality of the costs; and

Response:

Please note that while the question only addresses the first three items of item IV in the Regulatory Account Filing Checklist, FEI provides a discussion of all four considerations set out in item IV of the Regulatory Account Filing Checklist as follows:

a) The requested deferral account is a regulatory proceeding cost account. Regulatory proceeding cost accounts are necessary because the number and type of regulatory proceedings can vary significantly by year. Further, once a regulatory proceeding is identified, the costs of that proceeding cannot be accurately forecast by the utility given that they can vary substantially, are not known at the time of making the regulatory account request, are unique to the circumstances for each application, may change as the regulatory review process unfolds, and are dependent on factors not within the utility's control. Factors not within the control of the utility include the regulatory process determined by the BCUC and the degree of involvement of interveners.

b) There is a high degree of forecast uncertainty for the reasons discussed in a) above. FEI forecasts additions to the deferral accounts based on the expected type of review process and degree of intervener involvement. Actual costs are recorded in the account so that actual, not forecast, costs are recovered in rates.

c) FEI estimates the total costs of this Application will be $0.260 million (pre-tax) for BCUC costs, intervener costs, external legal fees and consultant costs.

d) Generally, FEI recovers the costs of regulatory proceedings over the period of time related to the application, which serves to match the costs and benefits. There are no intergenerational inequities inherent in this practice. Therefore, FEI is requesting to amortize the costs of this Application over one year starting in 2023 to match the time period that the DSM Plan will be in place.

17.5 Please confirm if the proposed regulatory account is a benefit matching account, or explain otherwise.

Response:

Confirmed. FEI generally classifies regulatory proceeding accounts as benefit matching accounts since the costs are recovered over the period of time related to the applications, which serves to match the costs and benefits of the application.

17.6 Please confirm if the proposed regulatory account is a cash account, or explain otherwise.

Response:

Confirmed. Regulatory proceeding cost accounts are cash accounts.

17.7 Please provide an estimate of the regulatory costs, broken down by type of cost (e.g. consultant/expert fees, external legal counsel fees, administrative costs) that FEI anticipates capturing in the proposed deferral account.

Response:

As discussed in the response to BCUC IR1 17.4 (Item c), FEI estimates that the total regulatory costs to be captured in the proposed deferral account will be approximately $0.260 million (pre-tax), which are detailed by type in the table below.

Type of Cost	Amount $
BCUC	$5,000
Interveners	$60,000
Legal	$50,000
Experts/Consultants	$145,000
Total	**$260,000**

17.8 Please clarify whether FEI is proposing to capture the forecast or actual regulatory costs associated with the review of the Application in the proposed deferral account.

17.8.1 If FEI is proposing to capture the actual regulatory costs, please explain why this is appropriate.

Response:

FEI is proposing to capture the actual costs associated with this Application in the deferral account so that actual, not forecast, costs are recovered in rates. One of the benefits of deferral accounts is the ability to only recover actual costs rather than forecast costs. This is consistent with how FEI has always treated regulatory proceeding costs, and it is appropriate given the actual Application costs will be easily attributable to the deferral via invoices received from third parties.

17.9 Please provide any other information FEI considers would support the request, as outlined in the Regulatory Account Filing Checklist.

Response:

FEI notes that the requested deferral account is a regulatory proceeding cost account, which is routinely sought by utilities to capture external costs related to the preparation, filing, and regulatory review of applications.

17.10 Please elaborate on the difference between the "regulatory work" included in the Portfolio Level Activities and the regulatory costs that FEI is seeking to include in a new deferral account.

Response:

Reference to "regulatory work" included in the Portfolio Level Activities are those ongoing activities carried out by FEI's Conservation & Energy Management department staff and retained consultants or subject matter experts. This work includes:

- Regulatory planning
- Drafting regulatory applications and DSM reports, some examples include:
    - Annual Reports
    - DSM Plan Reports
    - Expenditure Transfers

Costs associated with the drafting and planning of the above-noted documents are borne by the Conservation & Energy Management department and are included in this submission as an expenditure. They are not included in the new deferral account.

The new deferral account would capture the regulatory costs listed in the response to BCUC IR1 17.7 and are not included in the Portfolio Level Activities amounts requested in the Application.

17.10.1 Please indicate if there is any overlap between of the Portfolio Level Activities regulatory costs and the costs to be captured in the requested new deferral account. If so, please detail the common components and their estimated costs.

Response:

No, these costs do not overlap with those captured in the requested deferral account as regulatory costs coded under Portfolio Level Activities are specific to department related planning and report drafting. Please refer to the response to BCUC IR1 17.10 for additional details.