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March 31, 2025

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

Attention: Patrick Wruck, Commission Secretary

Dear Patrick Wruck:

Re: FortisBC Inc. (FBC)
Electricity Demand Side Management (DSM) – 2024 Annual Report

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Attached please find the Electricity DSM Program 2024 Annual Report for FBC.

If further information is required, please contact Sarah Commander, Manager, Regulatory Affairs at (250) 469-6081.

Sincerely,

FORTISBC INC.

Original signed:

Sarah Walsh

Attachment

FortisBC Inc.

Electricity
Demand-Side Management Programs
2024 Annual Report

March 31, 2025

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1. REPORT OVERVIEW

This Demand-Side Management (DSM) Annual Report (Report) provides highlights of FortisBC Inc.'s (FBC or the Company) DSM programs for the year ended December 31, 2024 and provides a summary of results achieved in 2024. The Report reviews the progress of FBC's DSM programs in meeting the BCUC accepted 2023-2027 DSM Plan[1] (Plan) by educating and incenting FBC's customers to conserve energy and improve the energy efficiency of their homes, buildings, and businesses.

Section 1.1 contains a statement of financial results (Table 1-1), including the Total Resource Cost (TRC) benefit/cost ratio cost-effectiveness test results by Program Area for 2024. Sections 1.1 and 1.2 set out how FBC's DSM programs met the requirements of the British Columbia Demand-Side Measures Regulation (DSM Regulation) enacted under the *Utilities Commission Act* (UCA). Section 1.3 and 1.4 provides information on funding transfers and carryover as well as highlights integral collaboration and integration that supports the delivery of DSM programs. Sections 2 through 10 of the Report provide an overview of DSM program activities in 2024 by Program Area, including program-level comparisons of actual energy savings and costs to Plan.

Additional details on 2024 program results, cost effectiveness test results (TRC) and levelized costs (LCOE), are included in each Program Area.

Throughout the Report, any difference in the totals between the DSM Portfolio Overview and Program Area tables are due to rounding. Where "zero" values occur, they may reflect rounding to the nearest $000s expenditure level when expenditures were under $500.

1.1 PORTFOLIO RESULTS

Tables 1-1 and 1-2 provides an overview of FBC's 2024 energy savings, demand savings, expenditures and TRC cost-effectiveness test results for all DSM programs, by Program Area, and at the portfolio level. FBC achieved an overall portfolio TRC of 1.7 on DSM expenditures of $13.857 million. Electricity savings totaled 34.1 GWh and demand savings totaled 5.8 MW. All FBC DSM programs passed the TRC test at the Program Area level.

[1] The FBC 2023-2027 DSM Plan expenditures were accepted by the BCUC pursuant to Decision and Order G-371-22 (the Decision).

Table 1-1: DSM Portfolio Summary Results for 2024 – Expenditures

Program Area	Utility Expenditures ($000s)					
	Incentives		Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Residential	2,484	2,543	775	615	3,451	3,158
Commercial	2,399	3,207	1,017	704	3,199	3,911
Industrial	1,770	1,189	360	328	3,324	1,517
Low Income	1,267	825	463	613	1,766	1,438
Conservation Education and Outreach	-	-	978	751	1,341	751
Innovative Technologies	175	-	510	455	1,075	455
Enabling Activities	774	670	826	320	1,957	989
Portfolio Level Activities	-	-	836	983	1,046	983
Demand Response	113	57	691	598	1,055	655
ALL PROGRAMS	**8,981**	**8,491**	**6,455**	**5,366**	**18,214**	**13,857**

Table 1-2: DSM Portfolio Summary Results for 2024 - Savings

Program Area	Annual Energy Savings (GWh)		Annual Demand Savings (MW)		Benefit/Cost Ratios	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	TRC	LCOE (¢/kWh)
Residential	6.3	5.8	2.2	1.2	1.4	8.4
Commercial	11.2	15.0	1.7	2.6	2.7	6.4
Industrial	8.3	12.5	1.4	0.3	2.2	1.6
Low Income	1.6	0.8	0.1	0.0	1.1	18.8
Conservation Education and Outreach	Savings not estimated		Savings not estimated		Savings not estimated	
Innovative Technologies	Savings not estimated		Savings not estimated		Savings not estimated	
Enabling Activities	Savings not estimated		Savings not estimated		Savings not estimated	
Portfolio Level Activities	Savings not estimated		Savings not estimated		Savings not estimated	
Demand Response	Savings not estimated		2.2	0.9/1.7*	0.4	
ALL PROGRAMS	**27.4**	**34.1**	**7.6**	**5.8**	**1.7**	**6.0**

*Winter Demand Savings/Summer Demand Savings

FBC's actual 2024 DSM expenditures were 76 percent of Plan and the DSM energy savings were 124 percent of Plan. Actual savings exceeded Plan in the Commercial and Industrial Program Areas, however savings were lower than expected in the Residential and Low Income Program Areas.

Throughout the Report, the following general notes also apply to all the Program Areas:

- A "Non-Program Specific Expenses" line item has been included for each Program Area in Sections 2 through 9. These expenditures support multiple programs within that Program Area and therefore, are not specific to only one program. Generally, these expenditures represent items such as training, travel, marketing collateral, and consulting services that support the overall Program Area.
- The expenditures, energy savings and cost-effectiveness results presented in the Report are exclusive of third-party funding such as CleanBC funding from the British Columbia Ministry of Energy and Climate Solutions (MECS). For measures that also

receive third party incentive funding, attribution of energy savings among the parties has been accounted for in both the FEI claimed savings and cost test results.

1.2 MEETING ADEQUACY REQUIREMENTS

Table 1-3 below shows how the Report meets the adequacy requirements of section 3 of the DSM Regulation. The 2023-2027 DSM Plan complies with the adequacy requirements of the DSM Regulation that were in effect at the time of Application filing, which includes amendments up to March 24, 2017.

Table 1-3: Meeting Adequacy Requirements of DSM Regulation

DSM Regulation	Compliance Summary
The DSM Regulation adequacy requirements were as follows: A public utility's plan portfolio is adequate for the purposes of Section 44.1 (8) c of the Act only if the plan portfolio includes all the following:	
a) a demand-side measure intended specifically i) to assist residents of low-income households to reduce their energy consumption, or ii) to reduce energy consumption in housing owned or operated by A. a housing provider that is a local government, a society as defined in section 1 of the Societies Act, other than a member-funded society as defined in section 190 of that Act, or an association as defined in section 1 (1) of the Cooperative Association Act, or B. the governing body of a first nation, if the benefits of the reduction primarily accrue to C. the low-income households occupying the housing, D. a housing provider referred to in clause (A), or E. a governing body referred to in clause (B) if the households in the governing body's housing are primarily low income households	Section 3 of the Report discusses programs and incentives for low-income customers, including Direct Install Program, the Self Install Program and the Social Housing Support Program.
b) if the plan portfolio is submitted on or after June 1, 2009, a demand-side measure intended specifically to improve the energy efficiency of rental accommodations	With regards to rental apartment buildings, FBC's offers include the Rental Apartment Efficiency Program (RAP), detailed in Section 3.4. Tenants can also access the Direct Install and Self Install offers available to qualifying rental properties.
c) an education program for students enrolled in schools in the public utility's service area d) if the plan portfolio is submitted on or after June 1, 2009, an education program for students enrolled in post-secondary institutions in the public utility's service area.	Conservation Education and Outreach, as described in Section 6, includes the continuation of the School Education Program which includes programming for grade schools and post-secondary institutions in FBC's service area.

DSM Regulation	Compliance Summary
e) one or more demand-side measures to provide resources as set out in paragraph (e) of the definition of "specified demand-side measure", representing no less than (i) an average of 1% of the public utility's plan portfolio's expenditures per year over the portfolio's period of expenditures, or (ii) an average of $2 million per year over the portfolio's period of expenditures.	FBC's DSM activities related to the codes and standards specified demand-side measure are considered enabling activities by FBC and are discussed in Section 7.
f) one or more demand-side measures intended to result in the adoption by local governments and first nations of a step code or more stringent requirements within a step code.	FBC supported BC Energy Step Code (the "Step Code") adoption through its New Home Program (Section 2.3), new construction offers in the Commercial Performance Program (Section 3.3) and provided progressive rebates to align with the Step Code. It also provided funding for Community Energy Specialists to support energy conservation behaviour campaigns (organizational and community-based) and to promote the Step Code to municipal building inspection staff and local builders and developers (Section 7.6).

1.3 FUNDING TRANSFERS AND CARRYOVER

The BCUC Decision and Order G-371-22 (the Decision) on FBC's 2023-2027 DSM Plan accepted the amended funding transfer rules between Program Areas where only transfers that exceed 25 percent of a Program Area's budget out of a Program Area require approval from the BCUC to proceed. The Decision further accepted amendments to the carryover rules that allow unspent and overspent Plan amounts to be carried over to the subsequent fiscal year.

Table 1-4 shows the 2024 DSM Plan expenditures and 2024 funding transfers between Program Areas. Table 1-5 provides the updated 2025 budget including the total expenditures carried over from 2024.

Table 1-4: 2024 DSM Funding Transfers and Carryover Amounts ($000s)

Program Area	2024 Plan Expenditures ($000) (including carryover)	2024 Actual Expenditures ($000)	2024 Actual less Plan Expenditures ($000) (including carryover)	Funding Transfer Amount in (out)	Plan Amount Carried over to 2025	Transfer as a percent of Approved (%)
Residential	3,451	3,158	(293)	0	293	0%
Commercial	3,199	3,911	712	(712)	0	-22%
Industrial	3,324	1,517	(1807)	0	1,807	0%
Low Income	1,766	1,438	(328)	0	328	0%
Conservation Education and Outreach	1,341	751	(590)	237	353	18%
Innovative Technologies	1,075	455	(620)	0	620	0%
Enabling Activities	1,957	989	(968)	475	493	24%
Portfolio Level Activities	1,046	983	(64)	0	64	0%
Demand Response	1,055	655	(400)	0	400	0%
ALL PROGRAMS	**18,214**	**13,857**	**(4,358)**	**0**	**4,358**	

Table 1-5: 2025 DSM Budget Including Carryover Amounts ($000s)

Program Area (Sector)	2025 Plan	2024 Carryover	2025 Budget including Carryover
Residential	3,566	293	3,859
Commercial	3,643	0	3,643
Industrial	2,187	1,807	3,994
Low Income	1,790	328	2,118
Conservation Education and Outreach	1,002	353	1,355
Innovative Technologies	255	620	875
Enabling Activities	1,960	493	2,453
Portfolio Level Activities	853	64	917
Demand Response	1,316	400	1,716
	16,572	**4,358**	**20,930**

1.4 COLLABORATION & INTEGRATION

FBC continues to work alongside BC's major energy utilities and other entities, including governments and industry associations, to integrate and improve DSM programming. The Company understands that such collaboration maximizes program efficiency and effectiveness.

In 2024, FBC, FortisBC Energy Inc. (FEI), and British Columbia Hydro and Power Authority (BC Hydro) (collectively, the BC Utilities) continued to collaborate on various programs and projects to enhance utility integration, supporting government legislation, policies, and directives. This collaboration resulted in cost efficiencies, including streamlined application processes for customers, extended program reach, and consistent, unified messaging aimed at improving energy literacy.

Additionally, FBC worked with MECS on CleanBC initiatives, which included administering incentives and facilitating applications for CleanBC rebates through FBC's processes, ensuring a seamless customer experience, and collaborated to support quality assurance and industry capacity training for the Home Performance Stakeholder Council (HPSC). While details of collaborative activities are included in the Program Area sections, the tables throughout the Report reflect expenditure and savings information for FBC's expenditure portfolio only.

1.5 PORTFOLIO SUMMARY

FBC's DSM portfolio met the goal of cost effectiveness, with a portfolio level TRC Benefit/Cost ratio of 1.7 in 2024. FBC believes that both energy savings accounted for in the portfolio and the resulting TRC are conservative, thus likely understated. In addition to the direct energy benefits accounted for in the TRC, benefits from additional activities, such as Conservation Education and Outreach (CEO), Enabling Activities and Demand Response, play an important role in supporting the development and delivery of programs, while helping facilitate market transformation in British Columbia. FBC continues to develop and maintain strong, collaborative relationships with other BC utilities, government partners, and key market stakeholders to provide its portfolio of DSM programs.

2. RESIDENTIAL PROGRAM AREA

2.1 OVERVIEW

The Residential Energy Efficiency Program Area consists of two programs:

- Home Renovation Rebate Program (Includes Retail Program); and
- New Home Program.

Tables 2-1 and Table 2-2 summarize the planned and actual expenditures and savings for the Residential Program Area.

Table 2-1: 2024 Residential Program Area Results Summary – Expenditures

Program	Utility Expenditures ($000s)					
	Incentives		Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Home Renovation Program	2,006	1,039	142	411	2,276	1,450
New Home Program	477	1,504	41	50	549	1,554
Labour	-	-	553	153	586	153
Non-Program Specific Expenses	-	-	39	-	41	-
ALL PROGRAMS	**2,484**	**2,543**	**775**	**615**	**3,451**	**3,158**

Table 2-2: 2024 Residential Program Area Results Summary – Savings

Program	Annual Energy Savings (GWh)		Annual Demand Savings (MW)		Benefit/Cost Ratios	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	TRC	LCOE (¢/kWh)
Home Renovation Program	5.7	4.5	1.9	0.8	1.5	7.1
New Home Program	0.6	1.3	0.3	0.5	1.3	11.8
Labour	Savings not estimated		Savings not estimated		Savings not estimated	
Non-Program Specific Expenses	Savings not estimated		Savings not estimated		Savings not estimated	
ALL PROGRAMS	**6.3**	**5.8**	**2.2**	**1.2**	**1.4**	**8.4**

2.2 HOME RENOVATION PROGRAM

The Home Renovation Rebate (HRR) Program encourages customers to take a whole home approach to their energy efficiency upgrades by consolidating space heating, water heating and building envelope measures into one overarching program. This program is a collaboration between the BC Utilities and MECS.

Retail and lighting programs directed towards the home renovation segment are included in this section. FBC collaborates with BC Hydro, retailers, and distributors to offer point-of-sale incentives on several low cost and easy to install measures such as LED fixtures, controls, draft proofing, water savers, bathroom fans, air purifiers and connected thermostats. Rebates for ENERGY STAR appliances for existing homes are also available.

The following are key updates for the program in 2024:

- HRR achieved 64 percent of planned expenditures and 79 percent of planned energy savings.
- Participation and incentives in HRR was driven by lower cost retail rebates such as draftproofing, water savers and lighting controls. This is likely due to an extended in market period over the previous year. In addition, heat pump service rebates and ENERGY STAR appliance rebates had strong, consistent participation.
- Heat pump and insulation rebates saw lower than planned participation, however participation was consistent with the previous year. FBC is collaborating with BC Hydro on opportunities to drive heat pump adoption for electrically heated homes in 2025.

2.3 NEW HOME PROGRAM

The New Home Program aligns with and provides incentives for the tiers of the BC Energy Step Code for Part 9 Buildings, as per Section 3 of the DSM Regulation. The New Home Program provides incentives for builders who adopt and comply with the Energy Step Code in municipalities across BC. FBC, in partnership with FEI, supports local governments in their adoption of the Step Code as part of an ongoing initiative for market transformation to high performance homes. Rebates for ENERGY STAR appliances in new homes are also available.

The following are key updates for the program in 2024:

- The New Home Program exceeded plan budget by 283 percent and target savings by 217 percent. Strong participation continued from 2023 and participation was largely driven by the previous program iteration. This is likely due to the significant upfront planning required in the construction process for new homes.
- In 2024, the New Home Program was redesigned and relaunched in collaboration with FEI to align with changes to the BC Building Code. The revised program offers enhanced incentives for achieving Step 4 and Step 5 of the BC Energy Step Code.

2.4 SUMMARY

Overall, the Residential Program Area achieved 92 percent of Plan for a total expenditure of $3.158 million. The difference between achieved and planned energy savings can be attributed to the higher proportion of high performance new construction and lower uptake in high efficiency residential retrofits. FBC invested $3.158 million providing multiple avenues for residential customers to access energy efficiency programs including home renovations, point-of-sale retail incentives, and through driving the adoption of high-performance homes in the residential new construction industry. Overall, the participation in residential programs resulted in over 5.8 GWh/year of electricity savings.

3. COMMERCIAL PROGRAM AREA

3.1 OVERVIEW

Commercial DSM programs encourage commercial customers (including institutions and government) to reduce electricity use. The Commercial Energy Efficiency Program Area consists of three programs:

- Prescriptive Program;
- Performance Program; and
- Rental Apartment Efficiency Program.

Tables 3-1 and 3-2 summarize the planned and actual expenditures and savings for the Commercial Program Area.

Table 3-1: 2024 Commercial Program Results Summary – Expenditure

Program	Utility Expenditures ($000s)					
	Incentives		Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Commercial Prescriptive	1,224	1,512	51	82	1,194	1,594
Commercial Performance	1,166	1,671	122	75	1,206	1,747
Rental Apartment	10	24	36	10	43	34
Labour	-	-	706	537	661	537
Non-Program Specific Expenses	-	-	102	-	96	-
ALL PROGRAMS	**2,399**	**3,207**	**1,017**	**704**	**3,199**	**3,911**

Table 3-2: 2024 Commercial Program Results Summary – Savings

Program	Annual Energy Savings (GWh)		Annual Demand Savings (MW)		Benefit/Cost Ratios	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	TRC	LCOE (¢/kWh)
Commercial Prescriptive	6.1	10.6	1.4	2.1	3.7	2.7
Commercial Performance	4.9	4.3	0.3	0.5	2.2	14.7
Rental Apartment	0.2	0.1	0.0	0.0	0.8	2.4
Labour	Savings not estimated		Savings not estimated		Savings not estimated	
Non-Program Specific Expenses	Savings not estimated		Savings not estimated		Savings not estimated	
ALL PROGRAMS	**11.2**	**15.0**	**1.7**	**2.6**	**2.7**	**6.4**

3.2 PRESCRIPTIVE PROGRAM

The Prescriptive Program includes incentives for the purchase and installation of specific qualifying new construction and retrofit measures. It provides rebates for energy efficient measures where the savings are well understood - and where installation may not be a part of a larger, more complex upgrade. Examples of such measures include LED lighting and lighting controls, commercial refrigeration, variable speed drives, and high efficiency commercial heat

pumps. The Prescriptive Program has two market delivery channels. Commercial customers can purchase qualifying measures at the vendor of their choice and apply for the rebate directly from FBC. Alternatively, for select qualifying measures (such as lighting and kitchen equipment), commercial customers can receive a rebate as a point-of-sale rebate from participating trade allies. Trade allies then apply for reimbursement of the point-of-sale rebates from FBC.

The following are key updates for the program in 2024:

- The program achieved 134 percent of planned expenditures and 174 percent of planned savings.
- Savings and incentives were driven by commercial lighting rebates through point-of-sale vendors.
- Participation and energy savings were also higher than anticipated with the heat pump offer.
- The carryover in 2023 was higher than the 2024 Plan number which resulted in a negative carryover in the Prescriptive non-incentive expenditures.

3.3 PERFORMANCE PROGRAM

The Performance Program provides incentives to encourage commercial customers to identify, assess, and implement custom building energy-efficiency projects for existing and new buildings. The program is administered jointly with FEI, providing customers with a one-stop program in the FBC service territory to evaluate and implement building-scale energy efficiency projects. FBC Technical Advisors provide customer outreach and engagement for the Performance Program.

The commercial retrofit offer in the Performance Program provides incentives for customers to engage a qualified energy consultant to study potential building-scale electrical and natural gas energy efficiency and retro-commissioning opportunities. Incentives are also available to encourage the implementation of cost-effective electric energy efficiency measures. The commercial new construction offer in the Performance Program encourages the design of high-performance commercial buildings. Capital incentives are available for customers that design new buildings that exceed BC Building Code.

Joint with FEI and BC Hydro, incentives are also available through the Performance Program for the recommissioning of commercial building heat, ventilation, and air conditioning systems.

The following are key updates for this program in 2024:

- The Performance Program achieved 145 percent of planned expenditures and 88 percent of planned savings.
- Higher than planned incentive costs were driven by increased participation in the commercial new construction offer.

- Savings were below Plan because of lower-than-expected participation in the Continuous Optimization and Commercial Retrofit offers.

3.4 RENTAL APARTMENT EFFICIENCY PROGRAM

The Rental Apartment Efficiency Program (RAP), in collaboration with FEI, provides energy assessments and the direct installation of in-suite measures, such as low-flow showerheads, and faucet aerators in hotels, motels and rental suites in multi-unit residential buildings (MURBs).

The following are key updates for the program in 2024:

- The program achieved 79 percent of planned expenditures. The program had higher than planned incentive costs as building owners continue to be interested in the program to support tenants and plan for larger retrofits.
- The program had lower than planned non incentive costs due to lower than expected costs to manage and operate the program.

3.5 SUMMARY

Overall, the Commercial Program Area achieved 122 percent of planned expenditures for a total expenditure of $3.911 million and achieved 134 percent of planned savings. The difference between achieved and planned savings can be attributed to increased participation in the commercial new construction and commercial lighting offers. Overall, the participation in Commercial programs resulted in nearly 15 million kWh/year of electricity savings.

4. INDUSTRIAL PROGRAM AREA

4.1 OVERVIEW

The Industrial Energy Efficiency Program Area consists of three programs:

- Prescriptive Program;
- Performance Program; and
- Strategic Energy Management (SEM) Program.

Tables 4-1 and 4-2 summarize the planned and actual expenditures and savings for the Industrial Program Area.

Table 4-1: 2024 Industrial Program Results Summary - Expenditures

Program	Utility Expenditures ($000s)					
	Incentives		Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Industrial Prescriptive	785	582	12	57	1,244	640
Industrial Performance	785	354	26	7	1,265	362
Strategic Energy Management	200	252	36	-	368	252
Labour	-	-	286	264	447	264
Non-Program Specific Expenses	-	-	-	-	-	-
ALL PROGRAMS	**1,770**	**1,189**	**360**	**328**	**3,324**	**1,517**

Table 4-2: 2024 Industrial Program Results Summary - Savings

Program	Annual Energy Savings (GWh)		Annual Demand Savings (MW)		Benefit/Cost Ratios	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	TRC	LCOE (¢/kWh)
Industrial Prescriptive	5.5	2.6	1.0	0.0	1.9	5.0
Industrial Performance	2.0	1.2	0.2	0.2	2.2	4.3
Strategic Energy Management	0.8	8.7	0.2	0	13.1	0.1
Labour	Savings not estimated		Savings not estimated		Savings not estimated	
Non-Program Specific Expenses	Savings not estimated		Savings not estimated		Savings not estimated	
ALL PROGRAMS	**8.3**	**12.5**	**1.4**	**0.3**	**2.2**	**1.6**

4.2 PRESCRIPTIVE PROGRAM

The Prescriptive Program includes fixed incentives for the purchase and installation of specific qualifying new construction and retrofit measures. It provides rebates for energy efficient measures where the savings are well understood - and their installation is not typically part of a larger, more complex upgrade. Examples of such measures include LED horticultural lighting, variable speed drives, irrigation equipment, and compressed air systems.

The Prescriptive Program has two delivery channels. Industrial customers can purchase qualifying measures and apply for rebates directly from FBC. Alternatively, for select qualifying

measures such as horticultural lighting and irrigation equipment, industrial customers can receive their incentive as a point-of sale rebate from participating trade allies. Trade allies then apply for reimbursement of the paid rebates from FBC.

The following are key updates for the program in 2024:

- The Prescriptive Program achieved 51 percent of planned expenditures and 47 percent of planned savings.
- Energy savings and incentives were driven by LED horticultural lighting.
- Participation was lower than Plan due to high interest rates in early to mid-year which delayed projects.

4.3 PERFORMANCE PROGRAM

The Performance Program provides incentives to encourage customers to identify, assess and implement measures that use energy for process-related activities. The program is administered jointly with FEI, providing customers with a one-stop program in the FBC service territory to evaluate and implement industrial energy efficiency projects. FBC Technical Advisors provide customer outreach and engagement for the Performance Program. The program offers co-funding for plant wide audits, feasibility studies, and implementation incentives. The Plant Wide Audit offer provides incentives for customers to engage a qualified energy consultant to perform a high-level, whole facility audit to identify opportunities to use electricity and natural gas more efficiently within an industrial facility. The Feasibility Study offer provides incentives to study a specific process or system within an industrial facility to use electricity and natural gas more efficiently. DSM incentives are available to encourage the implementation of cost-effective electric energy efficiency measures.

The following are key updates for the program in 2024:

- The Industrial Performance Program achieved 29 percent of planned expenditures.
- Incentives and savings were lower than expected in part due to project delays caused by supply chain disruptions. These projects are expected to complete in the later years of the DSM Plan.

4.4 STRATEGIC ENERGY MANAGEMENT PROGRAM

The Strategic Energy Management (SEM) Program is a comprehensive offering for large and medium industrial customers that provides them with energy modeling, energy efficiency coaching and strategic planning support to achieve both operational savings and to encourage larger capital upgrades. The program is administered in collaboration with FEI.

The following are key updates for the program in 2024:

- The program achieved 68 percent of planned expenditures.
- In 2024, SEM milestone incentives were eliminated, but customer energy-saving incentives were increased to maintain participant engagement and focus on completing energy efficiency projects at participating sites. Expenditures were lower than anticipated due to delays in launching a second SEM cohort group. This SEM cohort group will be active in 2025.
- Savings were higher than expected due to strong consultant engagement that facilitated the completion of several significant projects at participating sites, resulting in combined energy savings that surpassed Plan.

4.5 SUMMARY

Overall, the Industrial Program Area achieved 46 percent of planned expenditures for a total expenditure of $1.517 million, however, planned savings achieved 151 percent of plan. The lower than planned expenditures can be attributed to project delays in the Performance Program and fewer than anticipated projects in the Prescriptive Program. The difference between achieved and planned savings can be attributed to strong performance in the Strategic Energy Management Program. Overall, the participation in Industrial programs resulted in over 12.5 million kWh/year of electricity savings.

5. LOW INCOME PROGRAM AREA

5.1 OVERVIEW

This program area focuses on creating energy savings opportunities for low income customers. It includes programs for low income customers as well as programs for charities and housing providers, including Indigenous community housing providers, which in turn benefits FBC's low income customers. The Low Income Program Area consists of four programs:

- Self Install Program;
- Direct Install Program;
- Prescriptive Program; and
- Performance Program.

Tables 5-1 and 5-2 summarize the planned and actual expenditures and savings for the Low Income Program Area.

Table 5-1: 2024 Low Income Program Results Summary – Expenditures

Program	Utility Expenditures ($000s)					
	Incentives		Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Self Install (ESK)	43	12	18	89	62	101
Direct Install (ECAP)	500	477	160	218	674	694
Prescriptive	574	229	22	0	609	229
Performance	150	107	11	2	165	109
Labour	-	-	241	305	246	305
Non-Program Specific Expenses	-	-	10	0	10	0
ALL PROGRAMS	**1,267**	**825**	**463**	**613**	**1,766**	**1,438**

Table 5-2: 2024 Low Income Program Results Summary – Savings

Program	Annual Energy Savings (GWh)		Annual Demand Savings (MW)		Benefit/Cost Ratios	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	TRC	LCOE (¢/kWh)
Self Install (ESK)	0.3	0.1	0.0	0.00	3.1	19.5
Direct Install (ECAP)	0.4	0.4	0.0	0.00	0.9	14.7
Prescriptive	0.8	0.2	0.0	0.01	1.2	9.0
Performance	0.1	0.2	0.1	0.03	1.4	44.3
Labour	Savings not estimated		Savings not estimated		Savings not estimated	
Non-Program Specific Expenses	Savings not estimated		Savings not estimated		Savings not estimated	
ALL PROGRAMS	**1.6**	**0.8**	**0.1**	**0.04**	**1.1**	**18.8**

5.2 SELF-INSTALL PROGRAM

The Self Install Program provides participants with an Energy Savings Kit (ESK) that includes energy saving measures along with an instruction booklet and directions to access online "how

to" videos. All measures are easy to install and participants install themselves. The Self Install program is a partnership program with FEI.

The following are key updates for the program in 2024:

- The program achieved 163 percent of planned expenditures and 33 percent of planned kWh savings.
- Participation in the program was impacted by the delayed launch of the program's marketing campaign due to the provincial election interregnum. Because FBC coordinates with the BC Utilities and the marketing campaign is coordinated provincially for the utilities, the provincial election delayed the campaign. After the FBC marketing campaign launched, the postal strike that began in November also negatively impacted program participation.

5.3 DIRECT INSTALL PROGRAM

The Direct Install Program provides an in-home visit from a program contractor to assess their home's energy efficiency, install basic measures (e.g., LED lighting, low-flow showerheads, etc.) and provide customized energy efficiency coaching. Additionally, some participants qualify to receive more robust measures such as fridges and insulation. Partners in the Direct Install Program include FEI and BC Hydro.

The following are key updates for the program in 2024:

- The program achieved 103 percent of planned expenditures and realized planned energy savings.
- FBC expanded fridge replacement criteria and enhanced outreach efforts to housing providers, resulting in participation from several housing providers with multi-unit apartment buildings. Additionally, the Province's free air-conditioner offer for low-income and heat-vulnerable customers, delivered through the Direct Install Program, contributed to slightly higher participation levels than planned.

5.4 PRESCRIPTIVE PROGRAM

The Prescriptive Rebate Program provides rebates, implementation support, funding for energy studies, and training for housing providers. It also includes rebates for individual low income customers and Indigenous communities' residential buildings. Prescriptive rebates provide a straightforward path for participants in energy efficiency programs. Prescriptive rebates are available for measures such as commercial lighting, kitchen equipment, ventilation, insulation, windows/doors and heat pumps; and for Indigenous communities, additional measures for health and safety (e.g., mould or asbestos removal), air sealing, and appliance maintenance are included.

The following are key updates for the program in 2024:

- The program achieved 38 percent of planned expenditures and 25 percent of energy savings.
- Program performance can be attributed to other offers in the market that are competing with this program and to slow uptake of new offers added to the program in the latter part of the year. The new offers include ventilation, insulation, and windows and doors.

5.5 PERFORMANCE PROGRAM

The Performance Program provides incentives to support Indigenous communities to construct high-performance homes and commercial buildings. For example, participants access incentives by meeting the BC Energy Step Code standards for Part 3 and Part 9 buildings. The program is administered jointly with FEI.

The following are key updates for the program in 2024:

- The FBC Low Income Performance Program is designed to support new home construction in Indigenous communities. It achieved 66 percent of planned expenditures and doubled its energy savings target.
- The Performance Program was updated in 2024 to include elevated incentives for Step Codes 3, 4 and 5 to encourage more energy efficient construction. While the new program was marketed to Indigenous communities after launching mid-year it missed communities' planning window for projects in 2024. Only five communities within FBC's service area are eligible to participate in this program and efforts are currently focused on strengthening relationships and building capacity within those communities to encourage and enable future participation.

5.6 SUMMARY

Overall, the Low Income Program Area achieved 81 percent of total planned expenditures for a total expenditure of $1.438 million. The participation in Low Income programs resulted in over 0.8 GWh/year of electricity savings.

6. CONSERVATION EDUCATION AND OUTREACH

6.1 OVERVIEW

The Conservation Education and Outreach (CEO) initiatives provide education about energy conservation and efficiency, as well as non-program specific outreach communications. This program area fosters a culture of conservation within the province by providing education to a broad range of customers and stakeholders, including hard-to-reach residential and commercial customers, and students. The goal of these programs is to inform customers on how to conserve energy (behaviour change) and to educate about energy conservation, efficiency and incentive programs. The costs of CEO activities are included at the portfolio level and have an impact on the overall portfolio cost-effectiveness. Conservation Education and Outreach includes the following programs:

- Customer Engagement Tool;
- Residential Education Program;
- Commercial Education Program; and
- School Education Program.

Tables 6-1 summarizes the planned and actual expenditures for the CEO Program Area.

Table 6-1: 2024 Conservation, Education and Outreach Results Summary – Expenditures

Program	Utility Expenditures ($000s)			
	Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Residential Customer Engagement Tool	333	231	457	231
Residential Education Program	109	98	149	98
Commercial Education Program	95	153	130	153
School Education and Post-Secondary Program	56	112	77	112
Labour	385	158	528	158
ALL PROGRAMS	**978**	**751**	**1,341**	**751**

6.2 RESIDENTIAL CUSTOMER ENGAGEMENT TOOL

The Customer Engagement Tool home energy reports help customers understand their energy use in comparison to energy used by similar homes and encourages customers to reduce their energy through actionable advice. The online portal "My Energy Use" offers a home assessment survey that helps customers understand their energy consumption better. By completing the home assessment survey, users receive a customized action plan tailored to their specific needs, which can guide them in reducing their energy use more effectively.

The following are key updates for the program in 2024:

- Lower than planned expenditures are due to further development of the tool not proceeding because of an unexpected program overlap with an energy rating tool being developed externally for BC residential homeowners, and FBC not pursuing a proposed Virtual Energy Audit program, after further customer research.
- Similar to 2023, FBC sent six home energy reports to approximately 8,000 customers throughout 2024.

6.3 RESIDENTIAL EDUCATION PROGRAM

The Residential Education Program provides information to residential customers and the public on electricity conservation and energy literacy through direct engagement (either face-to-face or through online tools). This outreach extends to low income and multilingual customers. Ongoing partnerships with regional districts, municipalities, social service organizations, and local sports organizations expand outreach opportunities to engage with Residential customers.

Promotional activities include a multimedia rebate awareness campaign, engagement campaigns, educational seminars, and participation in home shows and community events. The program covers the cost of developing and producing educational and marketing materials for events, as well as prizes for audience engagement, such as draft proofing kits, used at events targeting residential customers.

The following are key updates for the program in 2024:

- FBC continued with the “We’ve got Rebates” general awareness campaign driving participation in its rebate programs.
- FBC and FEI maintained a commitment to direct customer engagement by participating in over 40 events in FBC’s territory. During these events, more than 4,500 meaningful conversations were held, focusing on energy literacy, conservation, efficiency, and rebate programs.

6.4 COMMERCIAL EDUCATION PROGRAM

The Commercial Education Program provides ongoing communication and education about energy conservation and efficiency measures as well as behavioural change educational programming to help commercial customers reduce their organization’s energy consumption. Commercial Education includes small to large businesses in a variety of sub sectors such as retail, offices, multi-family residences, schools, hospitals, hospitality services and municipal/institutions. Promotional activities include face-to-face engagement, print and online marketing, and participating in industry association meetings and tradeshows. FBC and FEI also host the Efficiency in Action Awards, which recognizes commercial customers for their innovation in energy efficiency and the electricity savings achieved. Additionally, FBC and FEI provide support for behavioral and technical education campaigns delivered by energy specialists in their respective organizations such as the Energy Wise Network which is offered in partnership with

BC Hydro. These initiatives also guide and support energy specialists, thermal energy managers or energy/facilities managers in their respective organizations or communities.

In 2024, FBC continued the "We've got Rebates" general awareness campaign driving participation in its rebate programs.

6.5 SCHOOL EDUCATION AND POST-SECONDARY PROGRAM

The School Education Program includes the Live It Earth series, a Kindergarten to Grade 8 curriculum connected resource, and the assembly style presentation, Energy Champions, which is currently delivered in collaboration with the BC Lions. A program for Grades 9 to 12, introduced in partnership with Live It Earth, offered students practical experience in storytelling through film and opportunities to engage with professionals from the energy efficiency sector. FBC and FEI enjoy ongoing partnerships with post-secondary institutions and support additional energy efficiency training for academic and trades training initiatives. This includes in-class programs, on-campus education campaigns, instructional tool development, and education campaigns delivered by energy specialists, thermal energy managers or energy/facilities managers.

The following are key updates for the program in 2024:

- FBC and FEI sponsored curriculum-connected programs for Grades K to 9 that focus on energy literacy, conservation, and efficiency. The Live It Earth series delivered energy efficiency and conservation education to students in Grades K to 7 through an interactive online learning platform. Additionally, FBC partnered with Relay Education to provide interactive energy conservation-focused workshops for students in Grades 6 to 7.
- FBC and FEI supported the Climate Action Ripple Effect (CARE) initiative in Vernon. CARE engages teachers, students, and community climate experts in creating student projects that align with UN Sustainable Development Goals, including energy efficiency and conservation. In 2024, the initiative involved over 700 students, 15 teachers, 60 community members and mentors, resulting in 18 projects focused on energy efficiency.
- For students enrolled in post-secondary academic institutions, FBC, in collaboration with FEI, delivered virtual presentations on demand-side management policies and programs in British Columbia, as well as employment opportunities within the energy management sector. Additionally, FBC and FEI provided funding support to Okanagan College and Selkirk College for hands-on training on high-performance buildings using a science based, envelope-first approach.

6.6 SUMMARY

The CEO Program Area continues to support the DSM Portfolio goals of energy conservation in various ways. Several initiatives and campaigns were undertaken in 2024, positively influencing customer attitudes about efficiency. Educating all types of customers and students remains a strong priority. FBC is committed to ensuring that the information provided is relevant and timely. FBC continued its collaboration with FEI in 2024 to maximize efficiencies across both utilities.

Costs continue to be shared on school, residential, and commercial outreach as applicable. FBC remains focused on behavioral change opportunities and partnering with post-secondary institutions to foster a culture of conservation in British Columbia while driving program awareness and participation.

7. ENABLING ACTIVITIES

7.1 OVERVIEW

Enabling Activities are initiatives that support and supplement FBC's C&EM program development and delivery. These programs, activities and projects provide resources common to the support and delivery of all program area activities. The costs of Enabling Activities are included at the portfolio level and are reflected in the overall portfolio cost-effectiveness. The Enabling Activities include the following:

- Trade Ally Network;
- Codes and Standards;
- Reporting Tool and Customer Application Portal;
- Commercial Energy Specialist Program;
- Community Energy Specialist Program; and
- Customer Research.

Table 7-1 summarizes the planned and actual expenditures for the Enabling Activities Program Area.

Table 7-1: 2024 Enabling Activities Results Summary

Program	Utility Expenditures ($000s)					
	Incentives		Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Trade Ally Network	-	-	187	108	229	108
Codes and Standards	251	233	259	26	624	259
Reporting Tool & Customer Application Portal	-	-	84	137	103	137
Commercial Energy Specialist Program	213	205	36	-	304	205
Community Energy Specialist Program	310	233	8	-	389	233
Customer Research	-	-	9	-	10	-
Labour	-	-	244	49	298	49
ALL PROGRAMS	**774**	**670**	**826**	**320**	**1,957**	**989**

7.2 TRADE ALLY NETWORK

The Trade Ally Network (TAN) includes expenditures related to FBC's work with industry. FBC relies on trade allies, such as contractors and distributors that install energy efficiency measures and provide qualifying products. This program also supports funding energy efficiency training, a specified demand-side measure outlined in the DSM Regulation Section 1.[2]

The following are key updates for 2024:

[2] *BC Utilities Commission Act, Demand-Side Measures Regulation (BC Reg. 326/2008) Section 1 amended March 24, 2017.*

- In collaboration with program partners, and the Home Performance Stakeholder Council (HPSC), FBC supported the development of the Home Performance Industry through trades outreach, training, and ongoing development of the Home Performance Contractor Network (HPCN) - a database of retrofit contractors in BC that meet specific trade designation and training qualifications.
- While participation in 2024 co-op advertising saw a slight decline compared to previous years, and some planned building envelope training sessions did not come to fruition, work was initiated in 2024 to assess industry readiness for adopting deep energy retrofits and to help build contractor capacity. This effort will continue throughout 2025.

7.3 CODES AND STANDARDS

The Codes and Standards budget finances FBC's support for codes and standards policy development and research, through in-kind and financial co-funding arrangements. A portion of the codes and standards funding is allocated to advancing the BC Energy Step Code as FBC supports the education and awareness of this new voluntary building standard. This includes support for high performance builder training, quality installation manuals, as well as energy modelling and blower door testing by certified energy advisors. FBC also works with and supports several international, national, and provincial entities to help develop new or update existing building codes and standards for buildings, HVAC equipment, appliances, and lighting products. Funding for codes and standards research is provided on a case-by-case basis.

The Codes and Standards area "supports the development of or compliance with specified standard or a measure respecting energy conservation or the efficient use of energy", as referred to in the definition of "specified demand-side measures" in the DSM Regulation Section 1 and supports implementation and adoption of such measures and aims to educate and provide training to the industry.

The following are key updates for 2024:

- Program achieved 42 percent of Plan. This was due to unanticipated delays in funding agreements.
- Financial measures to assist in codes and standards development were lower than the plan. This includes funding to Standards Development Organizations for development of standards or technical guides and funding for research used to help inform potential changes to Canadian national or BC building codes, related to energy efficiency and GHG emissions reductions.

7.4 REPORTING TOOL AND CUSTOMER APPLICATION PORTAL

The Reporting Tool & Customer Application Portal includes expenditures related to the Demand-Side Management Tracking System (DSMS). This system manages DSM rebates from the application stage through to payment, including application review, approval, payment file exports,

reporting, and customer communications. The budget consists of licensing and hosting fees and the labour required to operate and maintain the portal.

As of 2024, dependency on third parties was eliminated by handling all integrations internally, continuing to reduce costs.

7.5 COMMERCIAL ENERGY SPECIALIST PROGRAM

The Commercial Energy Specialist Program is a joint initiative between FBC and FEI that co-funds Energy Specialist, Analyst or Thermal Energy Manager positions in large commercial organizations. FBC offers up to $45 thousand in annual funding per participant, while FEI matches this amount. The priority is to identify and implement energy efficiency upgrades for their organizations and to participate in FBC and FEI's DSM programs. They are also responsible to identify and implement non-program specific opportunities to use electricity and natural gas more efficiently. FBC considers this an energy management program, and hence a specified demand-side measure, as defined in Section 1 the DSM Regulation and subject to Section 4.[3]

The following are key updates for 2024:

- There were eight contracted positions within the Commercial Energy Specialist Program that focused on both FEI and FBC related projects within their organizations. This program is funded to encourage activities that result in energy savings and program participation in the Commercial Program Area. An evaluation was conducted in early 2025 to quantify savings from 2024 that were not already captured in the Commercial Program Area. The evaluation study identified an additional 42,733 kWh of energy savings not previously captured in the Commercial Program Area.
- In 2024, the annual funding for Energy Specialist and Thermal Energy Manager positions was increased by $10 thousand and incorporated into contract renewals. This adjustment was essential to retain talent and attract higher-skilled applicants for open roles.

7.6 COMMUNITY ENERGY SPECIALIST PROGRAM

The Community Energy Specialist Program provides financial support to local municipal governments and regional districts, and institutional customers to facilitate energy efficiency planning activities like the development of community energy plans, energy efficient design practices and organizational policies such as adopting advanced energy efficiency standards for the entities' own buildings. FBC in partnership with FEI fund up to $120 thousand annually within its service territory. C&EM contributes up to 75 percent of this amount, with the remaining portion provided by FBC and FEI's External Relations department. The planning must be targeted at reducing electricity usage and demand. FBC considers this an energy management program,

[3] *BC Utilities Commission Act, Demand-Side Measures Regulation (BC Reg. 326/2008) Section 4(4)(5), amended March 24, 2017.*

and hence a specified demand-side measure, as defined in Section 1 the DSM Regulation and subject to Section 4.[4]

The following are key updates for 2024:

- Lower than anticipated expenses resulted from hiring challenges within local governments.
- There were six contracted positions within the Community Energy Specialist Program that focused on both FBC and FEI related projects within their organizations.

7.7 CUSTOMER RESEARCH

The Customer Research budget includes residential and commercial end use studies, ongoing research to track the impact of C&EM communications, communications testing, and customer segmentation research.

Research activities for 2024 supported an Income Qualified segmentation analysis for both FEI and FBC, however FBC funds used to support the project were under $1 thousand. No additional research activities were required for FBC in 2024.

7.8 SUMMARY

Overall, the Enabling Program Area achieved just over 50 percent of total planned expenditures. The gap between achieved and planned savings can be primarily attributed to municipalities facing hiring challenges in the Community Energy Specialist Program, lower than anticipated participation in the co-op advertising program, and a delay in planned contractor training due to ongoing industry training analysis.

[4] *BC Utilities Commission Act, Demand-Side Measures Regulation (BC Reg. 326/2008) Section 4(4)(5), amended March 24, 2017.*

8. INNOVATIVE TECHNOLOGIES

8.1 OVERVIEW

The Innovative Technologies Program Area funding supports the development, or increased use, of a "technology, a system of technologies, or a building or industrial facility design that could achieve significant reductions of energy usage or significantly more efficient use of energy."[5] FBC uses innovative technology funding to support feasibility studies, technology pilots, and field studies to assess the potential for these technologies.

In 2024, expenditures for Innovative Technologies were 42 percent of plan. The variance was primarily due to delays in pilot activities. The Deep Energy Retrofit project, which encompasses both incentive and non-incentive costs, commenced in 2024. However, an extended contractor proposal period delayed the start of construction until the end of November 2024. This extension was provided to build local contractor capacity, a specific goal of the project. The construction for the Deep Energy Retrofit project is on track to be completed in 2025.

Tables 8-1 summarizes the planned and actual expenditures for Innovative Technologies.

Table 8-1: 2024 Innovative Technologies Expenditures Results Summary

Program	Utility Expenditures ($000s)	
	Total Expenditures (including carryover)	
	2024 Plan	2024 Actual
Incentive Costs	274	-
Non-Incentive Costs	656	364
Labour	145	91
ALL PROGRAMS	**1,075**	**455**

8.2 INNOVATIVE TECHNOLOGIES

The table below details the projects undertaken throughout the year and their current status.

Technology Screening Activity	Activity Description
Battery Storage Study	A prefeasibility study assessed the viability of residential battery storage systems in the FBC service territory. The study included an examination of market adoption barriers, interviews with customers, installers, and manufacturers, and recommendations for the technology's future steps. The final report and presentation were completed in early 2024. Significant adoption barriers were identified.

[5] Technology innovation program defined in the Demand-Side Measures Regulation 326/2008 (amended Mar. 24, 2017).

Technology Screening Activity	Activity Description
Low Voltage Heat Pumps Study	A prefeasibility study assessed the viability of Low Voltage Heat Pumps in the FBC service territory. The study included an examination of market adoption barriers, interviews with customers, installers, and manufacturers, and recommendations for the technology's future steps. The final report and presentation were completed in mid 2024 with significant adoption barriers identified.
Smart Agriculture Controls Study	A prefeasibility study assessed the viability of Smart Agriculture Controls in the FBC service territory. The study included an examination of market adoption barriers, interviews with customers, installers, and manufacturers, and recommendations for the technology's future steps. The final report and presentation are planned to be complete in early 2025.
Deep Energy Retrofits	The Yaqan Nukiy Deep Energy Retrofit project development began in 2023. This involves selecting up to four homes within the Lower Kootenay Band and completing a comprehensive energy upgrade to them. Measures include window replacements, heating system upgrades and wall/roof insulation addition. Final homes were selected in mid 2024 and a local construction contractor was procured in November 2024. Construction is expected to be completed in 2025 with measurement and verification expected to be completed in 2026.
Hybrid Heating	Funds were allocated for the Hybrid Heating Pilot Project in 2023 for measurement and verification equipment. The commissioning of the equipment occurred late in 2023, and the measurement and verification period is anticipated to continue until spring 2025.
Commercial and Industrial Demand Response	Funds were allocated for the Commercial and Industrial Demand Response pilot program for startup software and IT setup. This was launched in 2024 and is anticipated to be completed in 2025.

8.3 SUMMARY

Overall, the Innovative Technologies Program Area achieved 42 percent of total planned expenditures. The difference between achieved and planned expenditures can be attributed to delays in construction activities for the Deep Energy Retrofit project.

9. DEMAND RESPONSE

9.1 OVERVIEW

Demand Response programs and pilots encourage customers to connect eligible devices to a demand response platform, that FBC can then manage to reduce the amount of electricity consumption during peak hours of the winter and summer seasons. The objective of Demand Response programs is to reduce electrical load during peak periods either by lowering consumption or shifting the load to non-peak periods. Demand Response is made up of two programs:

- Residential Demand Response; and
- Commercial and Industrial Demand Response.

Tables 9-1 and 9-2 summarize the planned and actual expenditures and savings for Demand Response.

Table 9-1: 2024 Demand Response Program Results Summary – Expenditures

Program	Utility Expenditures ($000s)					
	Incentives		Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Residential Demand Response	113	50	307	196	551	246
Commercial and Industrial Demand Response	-	7	27	145	35	152
Labour	-	-	357	256	469	256
Non-Program Specific Expenses	-	-	-	-	-	-
ALL PROGRAMS	**113**	**57**	**691**	**598**	**1,055**	**655**

Table 9-2: 2024 Demand Response Program Results Summary – Savings

Program	Annual Energy Savings (GWh)		Annual Demand Savings (MW)		Benefit/Cost Ratios	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual	TRC	LCOE (¢/kWh)
Residential Demand Response	0	0	2.2	0.9/1.7*	0.4	
Commercial and Industrial Demand Response	Savings not estimated		Savings not estimated		Savings not estimated	
Labour	Savings not estimated		Savings not estimated		Savings not estimated	
Non-Program Specific Expenses	Savings not estimated		Savings not estimated		Savings not estimated	
ALL PROGRAMS	**0**	**0**	**2.2**	**1.7**	**0.4**	**0.0**

*Winter Demand Savings/Summer Demand Savings

9.2 RESIDENTIAL DEMAND RESPONSE

Residential Demand Response activities include the Power Hours Rewards Program, which targets connected thermostats and electric vehicles (EVs) via telematics, the onboard software within the vehicles. This program is currently available to all FBC residential electric customers.

The following are key updates for the program in 2024:

- FortisBC's Power Hours Rewards program had its first year in market, targeting connected thermostats and electric vehicles via telematics, the onboard software within vehicles.
- Over 1,400 customers registered for the program and connected over 1,600 devices that were used for demand response events during both the winter and summer seasons.
- New partnerships were made towards the end of 2024 with equipment manufacturers to expand the number of eligible models of thermostats and EVs that can be accepted into the program.
- Expenditures and demand savings for Residential Demand Response were below plan as a result of fewer EVs participating in the program. Despite overall participation being as expected, there were a greater number of customers with thermostats who registered than customers with EVs, and thermostats have lower average incentive amounts and demand savings than electric vehicles.

9.3 COMMERCIAL AND INDUSTRIAL DEMAND RESPONSE

Commercial and Industrial Demand Response activities include a commercial and industrial automated demand response pilot, as well as a horticultural load shifting pilot. The commercial and industrial automated demand response pilot launched in 2024. Pilot activities included customer recruitment and connecting the buildings to allow for automated dispatch. This pilot is scheduled to conclude in 2025. The horticultural load shifting pilot also began in 2024 and targets horticultural customers with grow lights to schedule their lighting operations to off-peak hours. This pilot is set to conclude in 2025.

The following are key updates for the program in 2024:

- FBC completed the procurement process for a commercial and industrial automated demand response pilot and began recruitment. The pilot is currently underway and expected to complete in the 2025 calendar year.
- Additionally, FBC launched a pilot investigating load shifting for horticultural customers. The pilot participants began shifting their facility's operations to reduce their impact on peak demand in August 2024. The pilot is scheduled to conclude in 2025.
- Expenditures for Commercial and Industrial Demand Response were greater than expected due to higher upfront costs than expected to begin the commercial and industrial automated demand response pilot, as well as the costs to operate the horticultural load shifting pilot. It is expected that these expenditures will not impact overall planned values for this program.

9.4 SUMMARY

The Demand Response Program Area demand savings and expenditures were both slightly below planned values. The reasons for this discrepancy are primarily due to fewer EV participants than anticipated in the Residential Demand Response program.

10. PORTFOLIO LEVEL ACTIVITIES

10.1 OVERVIEW

Portfolio level activities are required to properly plan and implement the proposed DSM programs and support efforts to meet the energy savings targets. Their expenses include provisions for planning and evaluation staff. These staff members perform DSM project due diligence, including savings verification, and oversee program evaluation studies; prepare long term DSM Plans and DSM Expenditure Plans; and undertake conservation potential and avoided costs studies.

This area includes evaluation and portfolio level activities.

- Evaluation studies are conducted to determine if FBC's DSM program objectives are being met and savings are being realized. Evaluation of energy efficiency programs provides internal and external accountability in the estimates of energy and demand savings. Evaluation activities and studies are undertaken in collaboration with FEI.
- Portfolio Level Activities are comprised largely of planning as well as staffing costs and consultant fees for the numerous studies. Portfolio Level Activities are those activities for which the costs cannot be assigned to individual DSM programs. These distinct Portfolio Level Activities can include expenditure such as DSM support and portfolio level staff labour, some staff training and conferences, facilities and equipment, some industry association memberships, regulatory work and EECAG[6] activities.

Expenditures in 2024 for Evaluation and Portfolio-Level Activities were largely as planned.

Table 10 -1 includes the annual expenditures for DSM Studies, Evaluation, and Reporting portfolio activities.

Table 10-1: 2024 Portfolio Expenditures Results Summary

Program	Utility Expenditures ($000s)			
	Non-Incentives		Total Expenditures (including carryover)	
	2024 Plan	2024 Actual	2024 Plan	2024 Actual
Evaluation	179	186	224	186
Portfolio-Level Activities	657	797	823	797
ALL PROGRAMS	**836**	**983**	**1,047**	**983**

Details on Program Evaluation Activities undertaken by FBC in 2024 are included in Appendix A-1.

[6] The Energy Efficiency and Conservation Advisory Group (EECAG) provides insight and feedback on FBC and FEI's portfolio of DSM activities and related issues. In 2024, EECAG sessions were not held.

11. CONCLUSION

In 2024, FBC achieved 76 percent of its approved DSM expenditures and 124 percent of its annual energy savings target, as outlined in the 2023-2027 DSM Plan. This result was realized a total energy savings of 34.1 GWh, driven by Industrial savings of 12.5 GWh, Commercial savings of 15.0 GWh, and Residential savings of 5.8 GWh. Customer incentives comprised the largest cost component of expenditures, making up 61 percent of the overall portfolio.

This Report details how FBC delivered its energy conservation programs in a cost-effective manner, achieving an overall portfolio TRC Benefit/Cost ratio of 1.7 while exceeding planned energy savings targets. FBC continues to offer a robust portfolio of DSM programming accessible to all customer rate classes, while meeting the adequacy requirements of the DSM Regulation and operating according to the Company's DSM Guiding Principles.

In 2025, FBC will continue to provide a comprehensive portfolio of DSM programming accessible to all customer groups and locations, in full compliance with the adequacy requirements of the DSM Regulation and in alignment with the Company's DSM Guiding Principles.

Appendix A-1

FBC INVENTORY OF DSM PROGRAM EVALUATION AND RESEARCH ACTIVITIES

Evaluation Name	Program Area	Type of Evaluation	Evaluation Partners	Evaluation Status
Home Renovation Program Evaluation	Residential	Process & Impact	FortisBC Energy Inc. & FortisBC Inc.	Evaluation of the program from design to delivery, including assessment of free-ridership, and identifying opportunities and areas for improvement. **Completed in Q2 2024.**
Participant and Building Owner Surveys	Commercial	Process	FortisBC Energy Inc. & FortisBC Inc.	Surveys conducted with building owners and tenants to assess customer satisfaction, program awareness, and gather feedback for future program design. **Completed annually.**
Custom Efficiency Program (CEP) Evaluation	Commercial & Industrial	Process & Impact	FortisBC Energy Inc. & FortisBC Inc.	Evaluation of the program from design to delivery, including assessment of free-ridership, understanding participants' motivations for participation, identifying opportunities and areas for improvement, and validation of energy savings. **Completed in Q2 2024.**
Commercial Energy Assessment Program (CEAP) Evaluation	Commercial	Process	FortisBC Energy Inc. & FortisBC Inc.	Survey conducted with program participants, and key stakeholders to assess the delivery and implementation of the Commercial Energy Assessment Program measures. **Completed in Q1 2024.**
Direct Install Quality Assurance	Low Income	Evaluation Study	FortisBC Energy Inc., FortisBC Inc. & BC Hydro	Ongoing quality assurance to ensure direct install measures are installed according to program policies and procedures.
Ongoing Customer Feedback Surveys	Low Income	Process	FortisBC Energy Inc., FortisBC Inc. & BC Hydro	Surveys with Direct Install program participants to gather feedback on their customer experience, satisfaction with the program and the program representatives. **Completed in Q4 2024.**
Low Income Program Evaluation	Low Income	Process & Impact	FortisBC Energy Inc. & FortisBC Inc.	Composed of: (1) deemed savings review of the Direct Install (ECAP) and Social Housing and Retrofit Support (SHRSP) programs and (2) synthesis of findings from ECAP feedback surveys to identify opportunities and areas for improvement. **To be completed in 2025.**

Evaluation Name	Program Area	Type of Evaluation	Evaluation Partners	Evaluation Status
Energy Audit 2023	Enabling Activities	Impact	FortisBC Energy Inc. & FortisBC Inc.	The study is an update to an energy savings audit to verify energy savings from projects completed in 2023. **Completed in Q1 2024.**
Energy Audit 2024	Enabling Activities	Impact	FortisBC Energy Inc. & FortisBC Inc.	The study is an update to an energy savings audit to verify energy savings from projects completed in 2024. **To be completed in 2025.**
Commercial End Use Study	Enabling Activities	Communications	FortisBC Energy Inc. & FortisBC Inc.	The survey identified energy end-uses in FortisBC's commercial gas and electric customers. The results are intended to support a variety of FortisBC processes and strategic initiatives such as load forecasting, energy conservation program design, long-term resource planning, and conservation potential reviews. **Completed in Q3 2024.**
Customer Satisfaction Index	Enabling Activities	Communications	FortisBC Energy Inc. & FortisBC Inc.	The study is expected to identify aspects of the customer experience that are driving customer satisfaction with energy efficiency programs and potential actions for FortisBC. **To be completed in 2025.**
Measure Library Review	Portfolio	Process	FortisBC Energy Inc. & FortisBC Inc.	Comprehensive review and update of the Measure Library workbook, and integration to DDSM. **To be completed in 2025.**