BC Hydro
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July 15, 2024

Patrick Wruck
Commission Secretary and Manager
Regulatory Services
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Patrick Wruck:

RE: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Fiscal 2005 – Fiscal 2006 Revenue Requirements Application
BCUC Decision G-96-04 dated October 29, 2004: Directive 69
(AMENDED pursuant to 2006 Integrated Electricity Plan and
2006 Long-Term Acquisition Plan
BCUC Decision G-29-07 dated May 11, 2007: Directive 16);
2008 Long-Term Acquisition Plan
BCUC Decision G-91-09 dated July 27, 2009: Directives 36, 38 and 42;
Fiscal 2017 – Fiscal 2019 Revenue Requirements Application
BCUC Decision G-47-18 dated March 1, 2018: Directive 23;
Fiscal 2020 - Fiscal 2021 Revenue Requirements Application
BCUC Decision G-246-20 dated October 2, 2020: Directives 47, 49, 50 and 51

BC Hydro writes to provide its Report on Demand Side Management Activities for the 12 months ending March 31, 2024.

For further information, please contact Alicia Henderson at bchydroregulatorygroup@bchydro.com

Yours sincerely,

Chris Sandve
Chief Regulatory Officer

sg/tl
Enclosure

[redacted]

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Report on Demand-Side Management Activities for Fiscal 2024
PUBLIC

July 2024

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1 Introduction

This BC Hydro annual report to the British Columbia Utilities Commission (**BCUC** or **Commission**) on Demand-Side Management (**DSM**) activities provides information on DSM expenditures, electricity savings, plan performance and mitigation measures for the 2024 fiscal year, which is the 12 months ending March 31, 2024. This report also provides information on the Low Carbon Electrification expenditures within the DSM Regulatory Account which were prescribed undertakings under the Greenhouse Gas Reduction (Clean Energy) Regulation (**GGRR**) in fiscal 2024.

This annual report is filed in compliance with the following BCUC Directives:

- Directive 69 from the BCUC Decision G-96-04 on BC Hydro's Fiscal 2005 to Fiscal 2006 Revenue Requirements Application (**F05-F06 RRA**);
- Directive 16 from the BCUC Decision G-29-07 on BC Hydro's 2006 Integrated Electricity Plan and Long-Term Acquisition Plan (**2006 IEP/LTAP**);
- Directives 36, 38, and 42 from the BCUC Decision G-91-09 on BC Hydro's 2008 Long-Term Acquisition Plan (**2008 LTAP**);
- Directive 23 from the BCUC Decision G-47-18 on BC Hydro's Fiscal 2017 to Fiscal 2019 Revenue Requirements Application (**F17-F19 RRA**); and
- Directives 47, 49, 50 and 51 from the BCUC Decision G-246-20 on BC Hydro's Fiscal 2020 to Fiscal 2021 Revenue Requirements Application **(F20-F21 RRA)**.

1.1 Overview of BCUC Directives

Directive 69 of the F05-F06 RRA Decision directed BC Hydro "to provide information to the BCUC for ongoing review of Power Smart performance through:

- Executive Summaries of milestone evaluation reports and full final evaluation reports for each program[1]; and
- Semi-annual reports on DSM activities which, amongst others, will include:
  - Detailed breakdown of OMA expenses related to support activities carried out within the Power Smart group and in other departments that support the Power Smart organization;
  - Detailed description of the functions of portfolio level costs and how these costs are allocated to programs;
  - Summaries of the overall performance of Power Smart with reference to program objectives; and
  - Variances of fiscal year budgeted and actual deferred capital expenditures and explanation of variances."

Directive 16 of the 2006 IEP/LTAP Decision directed BC Hydro "to continue to file reports on DSM performance as described in Directive 69 of the F05/F06 RRA Decision included in Order No. G-9604 and to file its Semi Annual Demand-Side Management Reports in the same format as the June 2005 Report with the following enhancements:

(i) Provide annual and cumulative totals since program inception;

(ii) Express these values on a per unit basis; and

(iii) Provide the benefit to cost ratios for the three DSM tests."

Directive 36 of the 2008 LTAP Decision directed BC Hydro to switch from semi-annual to annual DSM performance reports. Directive 38 from the same Decision directed BC Hydro to include in these reports:

[1] BC Hydro files its evaluation reports pursuant to Directive 69 of the F05 F06 RRA Decision separately. This annual report addresses the balance of Directive 69 and all other Directives outlined below.

> "…metrics for each initiative, achievements in relation to milestones, and description of past or planned mitigation measures where warranted. These mitigation measures should include shifting program resources and alternative supply options for each program. Ongoing DSM performance reporting should demonstrate how BC Hydro is continuously pursuing DSM and that specific programs are cost-effective."

Directive 42 of the 2008 LTAP Decision directed BC Hydro to continue to report Ratepayer Impact Measure (**RIM**) test values.

Directive 23 of the F17-F19 RRA Decision directs BC Hydro to "include a line item in BC Hydro's Annual Report on DSM Activities to reflect the Non-Integrated Area (**NIA**) activities that are tracked separately."

Directive 47 of the F20-F21 RRA Decision directed BC Hydro, among other things, to report on the progress of the NIA program in future annual DSM reports, and in the Fiscal 2023 to Fiscal 2025 Revenue Requirements Application (**F23-F25 RRA**), "including an assessment of whether that program has been effective in reducing barriers for Non-Integrated Area customers in accessing DSM offerings and thereby meeting the objective of Directive 23 from the 2017 to 2019 Revenue Requirements Application."

Directive 49 of the F20-F21 RRA Decision directed BC Hydro "to report on the Low Carbon Electrification expenditures within the DSM Regulatory Account annually in its annual DSM report to the BCUC, clearly allocated to the applicable classes defined in section 4(3) (a), (b), (c) or (d) of the GGRR, including a consolidated table with a break down between the Initial LCE and BC Hydro LCE projects and programs."

Directive 51 of the F20-F21 RRA Decision determined that BC Hydro may make inter-year and inter-program area transfers, as follows:

- BC Hydro may transfer unspent accepted DSM expenditures in a program area to the same program area in the following year of the Test Period, on the

condition that BC Hydro provides information regarding unspent amounts as part of its annual DSM reports so that all amounts transferred within a program area are transparently accounted for from one test year to the next; and

- The Panel accepted the DSM expenditure schedule including transfers of up to 25% of DSM expenditures from any one existing program area to any other existing program area.

1.2 BC Hydro has requested changes to our DSM funding transfer rules

In March 2024, BC Hydro submitted a Fiscal 2024 DSM Expenditure Schedule to the BCUC for acceptance. In that application, BC Hydro outlined that our fiscal 2024 DSM expenditures were forecast to exceed the schedule previously accepted by the BCUC pursuant to Order No. G-91-23. To provide flexibility for BC Hydro to manage the timing of expenditures and execute on its DSM plans, including accommodating the fiscal 2024 DSM expenditures, BC Hydro requested:

1. Acceptance of changes to its DSM transfer rules; or
2. Alternatively (and in the event that the relevant changes to the transfer rules are not accepted), acceptance of the additional DSM expenditures for fiscal 2024 (quantified at the time of the application as an additional $3.6 million based on a forecast with a currency date of January 2024).

A BCUC decision on this application has not yet been made. As set out above and outlined in section 2 of this report, the Fiscal 2024 DSM Expenditures application used a forecast of expenditures for fiscal 2024 with a currency date of January 2024. Actual expenditures for fiscal 2024 were lower than the January forecast, with the result that total portfolio expenditures stayed within the amount previously accepted by the BCUC. However, a transfer of greater than 25% was made into the capacity-focused program area, which is outside the limits of BC Hydro's current transfer rules. Should the BCUC accept the proposed changes to BC Hydro's transfer rules, the DSM expenditures within this annual report will fall within the new

transfer limits and will not require BCUC's separate acceptance. The rationale to support the capacity-focused expenditures was provided in the Fiscal 2024 DSM Expenditures Application.

1.3 We have incorporated the BCUC recommendation from the F23-F25 RRA

In addition to the Directives above, this Annual Report also incorporates the BCUC recommendation "that BC Hydro report on key accomplishments at the measure level within its annual DSM reporting. As a representative example, we highlight the level of detail provided in the most recent FortisBC Energy Inc. Natural Gas Demand-Side Management Programs Annual Report." Appendix A to this report provides more granular descriptions of the components of each program and key achievements at a level of granularity similar to that provided by FortisBC in their annual reports.

1.4 Amendments have been made to the DSM Regulation

Amendments to the DSM Regulation, effective June 30, 2023, have also been incorporated into this report. The key changes to the cost-effectiveness requirements in the regulation that impact BC Hydro are:

- Determinations of cost-effectiveness must be made by applying the Utility Cost Test (**UCT**), using an avoided cost of electricity that reflects the long-run marginal cost of acquiring electricity generated from clean or renewable resources in British Columbia. Previously, the cost-effectiveness of DSM was determined using the Total Resource Cost Test and modified Total Resource Cost Test; and
- Cost-effectiveness of Low Income and Indigenous programs is now assessed at the portfolio level. These initiatives are included in the definition of "Class A" demand-side measure, and are considered to be cost-effective if the portfolio

overall is cost-effective. Previously, these programs were subject to cost-effectiveness requirements at a program level.

As such, the cost-effectiveness results provided in this year's annual report reflect the Utility Cost Test, using BC Hydro's long-run marginal cost as the avoided cost of energy and capacity, with Low Income and Indigenous programs included at the portfolio level.

2 Expenditures and Electricity Savings for Fiscal 2024 as a Result of DSM Activities

BC Hydro's DSM expenditures[2] in fiscal 2024 totalled $107.4 million, while new incremental DSM electricity savings totalled 626 GWh/year. Expenditures were $11 million or 12% above the Fiscal 2024 DSM Plan presented in BC Hydro's F23-F25 RRA. However, accounting for carryover from fiscal 2023 (in line with BC Hydro's current DSM funding transfer rules), expenditures were $1.7 million, or 2% below plan.

As noted in section 1.2, BC Hydro filed a F2024 DSM Expenditures application in March 2024, which showed that our DSM expenditures were forecast to be over plan (including carryover) by $3.6 million, with the overspend predominantly related to capacity-focused DSM. The F2024 DSM Expenditures application used a forecast of fiscal 2024 expenditures with a currency date of January 2024. Actual expenditures for fiscal 2024 were lower than the January forecast, leading to overall expenditures for fiscal 2024 being 2% below plan.

Table 1 below presents planned and actual DSM expenditures and new incremental energy savings in fiscal 2024.

[2] Comprising all DSM-related deferred operating expenditures. DSM operating expenditures are presented in Table 9 of this report.

Table 1 Expenditures and New Incremental Energy Savings for Fiscal 2024*

Energy Efficiency DSM	Expenditures[1] Plan[2] $ 000	Actual $ 000	Variance $ 000	%	New Incremental Energy Savings Plan[2] GWh/yr	Actual[3] GWh/yr	Variance GWh/yr	%
Energy Efficiency Rate Structures								
Transmission Service – Stepped Rate	460	341	(119)	(0)	119	109	(10)	(0)
Carryover from F2023	38							
Total Energy Efficiency Rate Structures	**498**	**341**	**(157)**	**(31%)**	**119**	**109**	**(10)**	**(8%)**
Energy Efficiency DSM Programs								
Residential Sector								
Low-Income	9,667	15,264	5,597	58%	8	5	(4)	(43%)
Non-Integrated Areas	3,338	2,224	(1,114)	(33%)	1	0	(0)	(62%)
Retail	2,431	3,394	963	40%	6	5	(1)	(14%)
Home Renovation Rebate	8,429	8,460	30	0%	10	16	6	57%
Residential Energy Management Activities	5,087	6,643	1,556	31%	19	45	27	143%
Carryover from F2023	3,557							
Energy Efficiency Residential Sector Total	*32,510*	*35,984*	*3,474*	11%	*45*	*72*	*28*	62%
Commercial Sector								
LEM-C	9,072	10,474	1,402	15%	42	48	6	15%
New Construction	-	(22)	(22)	-	-	-	-	-
Commercial Energy Management Activities	5,931	5,307	(624)	(11%)	n/a	n/a	n/a	n/a
Carryover from F2023	927							
Energy Efficiency Commercial Sector Total	*15,930*	*15,758*	*(172)*	(1%)	*42*	*48*	*6*	15%
Industrial Sector								
LEM-I	15,479	12,753	(2,726)	(18%)	147	128	(19)	(13%)
Industrial Energy Management Activities	7,206	8,893	1,687	23%	n/a	n/a	n/a	n/a
Carryover from F2023	6,494							
Energy Efficiency Industrial Sector Total	*29,179*	*21,646*	*(7,533)*	(26%)	*147*	*128*	*(19)*	(13%)
Total Energy Efficiency Programs	**77,620**	**73,389**	**(4,231)**	**(5%)**	**233**	**248**	**15**	**6%**
Total Energy Efficiency Programs & Rates	**78,118**	**73,730**	**(4,388)**	**(6%)**	**353**	**357**	**5**	**1%**

Capacity Focused DSM	Expenditures[1] Plan[2] $ 000	Actual $ 000	Variance $ 000	%	New Incremental Energy Savings Plan[2] GWh/yr	Actual[3] GWh/yr	Variance GWh/yr	%
Capacity Rate Structures								
Residential CPP & TOU	1,613	914	(699)	(43%)	4	-	(4)	(100%)
Residential EV TOU	11	-	(11)	(100%)	n/a	n/a	n/a	n/a
Total Capacity Rate Structures	**1,624**	**914**	**(710)**	**(44%)**	**4**	**-**	**(4)**	**(100%)**
Capacity Programs								
Demand Response	3,255	2,694	(561)	(17%)	n/a	n/a	n/a	n/a
Transmission Load Curtailment	-	3,304	3,304	-	n/a	n/a	n/a	n/a
Non-Wires Alternative Program - Cross Sector	778	771	(7)	(1%)	n/a	n/a	n/a	n/a
Total Capacity Programs	**4,033**	**6,770**	**2,737**	68%	**n/a**	**n/a**	**n/a**	n/a
Capacity Focused: Program Enabling Total	**1,877**	**4,306**	**2,429**	**129%**	**n/a**	**n/a**	**n/a**	**n/a**
Capacity Programs, Rate Structures & Program Enabling	*7,534*	*11,990*	*4,456*	59%	*4*	*-*	*(4)*	(100%)
Carryover from F2023	533							
Total Capacity Programs, Rate Structures & Program Enabling	*8,067*	*11,990*	*3,923*	49%	*4*	*-*	*(4)*	(100%)
Portfolio (EE & CF) Supporting Initiatives								
Public Awareness	7,884	7,881	(4)	(0%)	n/a	n/a	n/a	n/a
Indirect and Portfolio Enabling	7,979	7,772	(206)	(3%)	n/a	n/a	n/a	n/a
Carryover from F2023	873							
Supporting Initiatives Total	*16,737*	*15,653*	*(1,084)*	(6%)	*n/a*	*n/a*	*n/a*	n/a
Codes and Standards	*5,635*	*6,041*	*406*	7%	*242*	*269*	*27*	11%
Carryover from F2023	554							
Total Codes and Standards	*6,189*	*6,041*	*(148)*	(2%)	*242*	*269*	*27*	11%
TOTAL DSM PORTFOLIO[4]	**109,110**	**107,415**	**(1,696)**	**(2%)**	**599**	**626**	**27**	**5%**

*Numbers may not add due to rounding.

Notes:

1 Including all DSM-related deferred operating expenditures that are relevant for DSM cost-effectiveness.

2 Plan figures are from BC Hydro's F23-F25 RRA, DSM Expenditure Schedules, Attachment 1, adjusted for the carryover from fiscal 2023, as outlined in Table 9 of BC Hydro's F2023 Annual Report on DSM Activities.

3 Reported savings from codes and standards and Transmission Service rate structures are based on planned estimates as well as evaluated results.

4 BC Hydro spent $107.4 million in fiscal 2024. In addition $9.5 million was credited to the DSM Regulatory account in fiscal 2024, resulting from the recovery of incentives paid in previous years to large industrial customers, where actual savings for the project were lower than expected.

Overall, new incremental electricity savings as shown in Table 1 exceeded the DSM Plan presented in BC Hydro's F23-F25 RRA by 27 GWh/year or 5%.

Table 2 below presents planned and actual new incremental capacity savings in fiscal 2024, including both capacity focused DSM and the associated capacity from energy efficiency activities.

Table 2 New Incremental Capacity Savings for Fiscal 2024

	New Incremental Capacity Savings			
	Plan MW	Actual MW	Variance MW	%
Capacity Savings from Energy Efficiency Activities	92	97	5	6%
Capacity-Focused DSM				
Capacity Rate Structures	13	0	-13	(100%)
Demand Response Programs	21	21	0	(1%)
Non-Wires Alternatives	0	0	0	-
Industrial Load Curtailment	0	[redacted]	[redacted]	-
TOTAL DSM PORTFOLIO	**126**	[redacted]	[redacted]	[redacted]

Table 3 below provides explanations of the variances between planned and actual expenditures and savings shown in the tables above. Note that while individual programs may show an increase in expenditures relative to the plan from the F23-F25 RRA, these expenditures (with the exception of capacity-focused DSM expenditures[3]) can be accommodated through the carryover of expenditures from fiscal 2023, and by funding transfers[4] across program areas, which are accounted for at the sector level (not program level). As described in our Fiscal 2024 DSM Expenditures application, the additional expenditures in fiscal 2024 were primarily driven by actions identified in the Updated 2021 IRP and in response to new opportunities identified for DSM to help alleviate system capacity constraints.

[3] As discussed in section 1.2 and in section 3.
[4] More detail is provided in section 3 on transfers in fiscal 2024.

Table 3 Variance Explanations between Planned and Actual Expenditures and Savings for Fiscal 2024

Energy Efficiency Rate Structures	
Transmission Service Rate	Expenditures were below plan due to lower administrative costs than planned. Savings were below plan based on updated assumptions from recent impact evaluation.
Energy Efficiency DSM Programs	
Residential Sector	
Low Income	Additional expenditures relative to plan supported higher participation across multiple offers and the new partnership with the Province of BC to co-fund the CleanBC Income Qualified program, in line with BC Hydro's most recent mandate letter[5]. Savings were below plan as a result of incorporating the findings of the most recent impact evaluation.
Non - Integrated Areas	Expenditures and savings were below plan due to a delayed start to the new partnership with the Province of BC in the Community Energy Diesel Reduction (**CEDR**) Program, administered by the New Relationship Trust. Projects that received approval for funding through the DSM stream of CEDR in fiscal 2024 have not yet completed implementation.
Retail	Additional expenditures relative to plan supported a new efficient air conditioner rebate offer. Energy savings marginally below plan due to removal of LED bulbs from the program (since the lighting market has transformed) and a downward adjustment on thermostat savings informed by recent billing analysis.
Home Renovation Rebate	Expenditures on plan. Savings above plan as a result of preliminary findings from an evaluation survey.
Residential Energy Management Activities	Additional expenditures relative to plan supported a time limited Team Power Smart promotion, resulting in higher participation and higher savings.
Commercial Sector	
Leaders in Energy Management – Commercial (**LEM-C**)	As part of the accelerated ramp up in the Updated 2021 IRP, additional expenditures relative to plan supported higher participation across all offers, resulting in higher savings.
Commercial Energy Management Activities	Expenditures were below plan largely due to Energy Manager turn-over and the time required to hire replacements.

[5] The July 2023 Mandate Letter specifies a new priority to "Work with the Ministry of Energy, Mines and Low Carbon Innovation to co-develop targeted programs to support clean energy and efficiency upgrades for low-income and multi-unit residential buildings".

Industrial Sector	
Leaders in Energy Management – Industrial (**LEM-I**)	Expenditures and savings were below plan due to a number of projects that did not complete in F2024 and will now complete in F2025. Timing of industrial projects are subject to plant maintenance shutdowns and equipment supply.
Industrial Energy Management Activities	As part of the accelerated ramp up in the Updated 2021 IRP, additional expenditures were incurred relative to plan as we committed more resources to energy management to support the future ramp up of energy savings.
Capacity Focused DSM	
Capacity Rate Structures	The plan assumed the residential TOU would be implemented in fiscal 2024. Expenditures and savings were below plan in fiscal 2024 because the residential TOU rate was implemented in fiscal 2025.
Demand Response	Expenditures were below plan as a result of fewer managed charging participants in Peak Rewards (direct load device control) than forecasted. Savings were on plan, as the impact of lower participation in Peak Rewards was offset by higher participation in Peak Saver (behavioural program), which has lower associated costs.
Industrial Load Curtailment	As described in section 4.2.1 of our Fiscal 2024 DSM Expenditures Application, we undertook an unplanned short-term industrial load curtailment offer during the winter months, as a result of the need for additional capacity arising from of system conditions and the provincial drought.
Non-Wires Alternatives	Expenditures were approximately on plan.
Capacity Focused: Program Enabling	As part of the accelerated ramp up in the Updated 2021 IRP, and as described in our Fiscal 2024 DSM Expenditures Application, additional expenditures supported studies and trials for battery storage and vehicle-to-grid technologies.
Portfolio Supporting Initiatives (EE & CF)	
Public Awareness	Expenditures were approximately on plan
Indirect and Portfolio Enabling	Expenditures were approximately on plan
Codes and Standards	Expenditures were above plan due to some project activities that were targeted for payment in F2023 but were delayed to F2024. Energy savings were above plan due to more local municipalities adopting the BC Energy Step Code and some municipalities have advanced to require higher energy efficiency tiers of the Energy Step Code as well as higher stringent energy efficiency requirements in the BC Building Code.

Further information on key accomplishments for individual programs in fiscal 2024 can be found in Appendix A to this report.

3 DSM Funding Transfers and Carryover

Directive 51 of the F20-F21 RRA Decision determined that BC Hydro may make inter-year and inter-program area transfers, as follows:

- BC Hydro may transfer unspent accepted DSM expenditures in a program area to the same program area in the following year of the Test Period, on the condition that BC Hydro provides information regarding unspent amounts as part of its annual DSM reports so that all amounts transferred within a program area are transparently accounted for from one test year to the next; and
- The Panel accepted the DSM expenditure schedule including transfers of up to 25% of DSM expenditures from any one existing program area to any other existing program area.

In March of 2024, BC Hydro submitted an application to the BCUC for acceptance of revisions to these transfer rules. Specifically, we have asked for acceptance of the following:

- BC Hydro is permitted to make transfers of up to 25% of accepted DSM expenditures from one existing program area to another existing program area without BCUC acceptance, on the condition that BC Hydro adds information regarding such transfers to its DSM Annual Report, so that all amounts transferred from one existing program area to another existing program area are transparently accounted for in the DSM Annual Report;
- In cases where a proposed transfer into an approved program area is greater than 25% of that program area's accepted expenditures for the year in question, BCUC acceptance of the funding transfer is not required; and
- In cases where a proposed transfer out of an approved program area is greater than 25% of that program area's accepted expenditures for the year in question, BCUC acceptance of the funding transfer is required;

- BC Hydro is permitted to carryover unspent and overspent expenditures in a program area to the same program area in the following year without BCUC acceptance, on the condition that BC Hydro provides information regarding unspent and overspent amounts as part of its DSM Annual Reports so that all amounts transferred within a program area are transparently accounted for from one test year to the next; and
- BC Hydro is permitted to exceed total approved DSM Portfolio expenditures before any carryover amounts in each year of a test period by no more than 5% without BCUC acceptance, on the condition that BC Hydro adds information regarding such expenditures to its DSM Annual Report, so that all additional amounts are transparently explained in the DSM Annual Report.

Table 4 below presents the transfers across program areas in fiscal 2024, which shows that we have transferred funds into the capacity-focused DSM area equivalent to 49% of planned expenditures. This transfer is compliant with the DSM funding transfer rules proposed as part of our F2024 DSM Expenditures Application, but does not fall within the limits of BC Hydro's current DSM funding transfer rules. The rationale to support the capacity-focused expenditures was provided in section 4.2 of the Fiscal 2024 DSM Expenditures Application.

Table 4 Funding Transfers for fiscal 2024 and Calculation of Carryover Expenditures to fiscal 2025 ($000)

Program Area	F2024 Plan Expenditures plus Carryover from F2023 (a)	F2024 Actuals Expenditures (b)	F2024 Actuals Variance to Plan (c) = (b) - (a)	Transfers in / (out) (d)	% Transfer (e) = (d)/(a)	Carryover to F2025 (f) = (d) - (c)
Total Energy Efficiency Rate Structures	498	341	(157)	-	-	157
Energy Efficiency Residential Sector Total	32,510	35,984	3,474	3,474	11%	-
Energy Efficiency Commercial Sector Total	15,930	15,758	(172)	-	-	172
Energy Efficiency Industrial Sector Total	29,179	21,646	(7,533)	(6,314)	(22%)	1,219
Total Capacity Programs, Rate Structures & Program Enabling	8,067	11,990	3,923	3,923	49%	-
Supporting Initiatives Total	16,737	15,653	(1,084)	(1,084)	(6%)	-
Codes and Standards	6,189	6,041	(148)	-	-	148
TOTAL DSM PORTFOLIO	**109,110**	**107,415**	**(1,696)**	**-**		**1,696**

As shown in Table 4, BC Hydro underspent by $1.7 million in fiscal 2024 and, according to our current DSM funding transfer rules, this amount can be carried over into fiscal 2025. However, we expect our expenditures in fiscal 2025 to exceed the limits of both our current transfer rules, and the revised rules proposed in the Fiscal 2024 DSM Application and, as noted in BC Hydro's Updated 2021 IRP and in our Fiscal 2024 DSM Application, we intend to file an application for BCUC acceptance of revised fiscal 2025 DSM expenditures, along with expenditures for years beyond fiscal 2025, within this fiscal year.

4 Expenditures to Date

BC Hydro's DSM expenditures for fiscal 2024 totalled $107.4 million. Table 5 below presents DSM expenditures by program from April 1, 2022 to March 31, 2024.

Table 5 Expenditures for Fiscal 2023 to Fiscal 2024*

Energy Efficiency DSM	F2023 ($ 000)	F2024 ($ 000)	Total ($ 000)
Energy Efficiency Rate Structures			
Transmission Service – Stepped Rate	420	341	762
Total Energy Efficiency Rate Structures	420	341	762
Energy Efficiency DSM Programs			
Residential Sector			
Low-Income	7,628	15,264	22,892
Non-Integrated Areas	1,581	2,224	3,806
Retail	2,226	3,394	5,620
Home Renovation Rebate	7,293	8,460	15,753
Residential Energy Management Activities	3,715	6,643	10,358
Energy Efficiency Residential Sector Total	*22,444*	*35,984*	*58,428*
Commercial Sector			
LEM-C	8,948	10,474	19,422
New Construction	442	(22)	420
Commercial Energy Management Activities	5,113	5,307	10,420
Energy Efficiency Commercial Sector Total	*14,503*	*15,758*	*30,262*
Industrial Sector			
LEM-I	14,976	12,753	27,730
Industrial Energy Management Activities	6,121	8,893	15,014
Energy Efficiency Industrial Sector Total	*21,097*	*21,646*	*42,743*
Total Energy Efficiency Programs	**58,044**	**73,389**	**131,433**
Total Energy Efficiency Programs & Rates	**58,465**	**73,730**	**132,195**

Capacity Focused DSM	F2023 ($ 000)	F2024 ($ 000)	Total ($ 000)
Capacity Rate Structures			
Residential CPP & TOU	96	914	1,010
Residential EV TOU	-	-	-
Total Capacity Rate Structures	**96**	**914**	**1,010**
Capacity Programs			
Demand Response Base	909	2,694	3,603
Transmission Load Curtailment	-	3,304	3,304
Non-Wires Alternative Program - Cross Sector	173	771	945
Total Capacity Programs	**1,083**	**6,770**	**7,853**
Capacity Focused: Program Enabling Total	**1,829**	**4,306**	**6,135**
Total Capacity Programs, Rate Structures & Program Enabling	**3,008**	**11,990**	**14,998**
Portfolio (EE & CF) Supporting Initiatives			
Public Awareness	7,699	7,881	15,580
Indirect and Portfolio Enabling	7,504	7,772	15,277
Supporting Initiatives Total	**15,203**	**15,653**	**30,856**
Codes and Standards	**4,982**	**6,041**	**11,024**
TOTAL DSM PORTFOLIO[1]	**81,658**	**107,415**	**189,073**

* Numbers may not add due to rounding.

Notes:

1 The F2023 DSM Report included a negative expenditure amount of $5.1 million within the sectoral totals, resulting in total DSM Portfolio expenditures of $76 million. The negative expenditure reflected a recovery of incentives paid in previous years to large industrial customers, where actual savings for the project were lower than expected. In order to be consistent with the fiscal 2024 expenditures, in Table 5 we have adjusted the fiscal 2023 totals to remove this expenditure.

BC Hydro's DSM electricity savings since the beginning of fiscal 2023 totalled 1,092 GWh/year at March 31, 2024, which equates to 106% of the planned savings of 1,029 GWh/year in the F23-F25 RRA. Table 6 below presents actual cumulative savings as a percentage of the plan in the F23-F25 RRA as of the end of fiscal 2024.

Table 6 Cumulative Electricity Savings: Fiscal 2023 and Fiscal 2024

Energy Efficiency DSM	Actual as a Percentage of Plan[1]
Energy Efficiency Rate Structures	
Transmission Service – Stepped Rate	87%
Total Energy Efficiency Rate Structures	**87%**
Energy Efficiency DSM Programs	
Residential Sector	
Low-Income	74%
Non-Integrated Areas	23%
Retail	93%
Home Renovation Rebate	190%
Residential Energy Management Activities	195%
Energy Efficiency Residential Sector Total	152%
Commercial Sector	
LEM-C	106%
New Construction	57%
Commercial Energy Management Activities	n/a
Energy Efficiency Commercial Sector Total	105%
Industrial Sector	
LEM-I	97%
Industrial Energy Management Activities	n/a
Energy Efficiency Industrial Sector Total	97%
Total Energy Efficiency Programs	**111%**
Total Energy Efficiency Programs & Rates	**104%**
Total Capacity Programs, Rate Structures & Program Enabling	**0%**
Codes and Standards	**109%**
TOTAL DSM PORTFOLIO	**106%**

Notes:

[1] Reported savings for codes and standards and rates structures are based on planned estimates as well as evaluated results.

The cumulative portfolio DSM electricity savings from April 1, 2022 through March 31, 2024 have been achieved at an average net levelized utility cost of $14 per MWh. Table 7 below presents the net levelized utility cost that is calculated by subtracting capacity benefits from gross utility costs and then dividing the resulting net utility costs by electricity savings. A negative net levelized utility cost means that the subtracted capacity benefits exceed gross utility costs.

Table 7 Utility Cost of Electricity Savings: Fiscal 2023 to Fiscal 2024

	Net Levelized Utility Cost ($/MWh)
Energy Efficiency Rate Structures	
Transmission Service Rate	-$15
Total Rate Structures	**-$15**
Energy Efficiency DSM Programs	
Residential Sector	
Low Income	n/a
Non Integrated Areas	n/a
Retail	-$1
Home Renovation Rebate	-$40
Energy Efficiency Residential Sector Total	*-$34*
Commercial Sector	
LEM-C	*$0*
New Construction	*$2*
Energy Efficiency Commercial Sector Total	*$0*
Industrial Sector	
LEM-I	$1
Energy Efficiency Industrial Sector Total	$1
Total Energy Efficiency Programs	**-$8**
Total Energy Efficiency Programs & Rates	**-$10**
Portfolio (EE & CF) Supporting Initiatives	n/a
Portfolio (EE & CF) Energy Management Activities	n/a
Codes and Standards	n/a
Total DSM Portfolio[1]	**$14**

Notes:

1 Energy management activities, supporting initiatives costs and codes and standards costs are included at the portfolio level. Costs and savings for low income, social housing & indigenous programs are also included at the portfolio level in accordance with the June 2023 amendments to the DSM Regulation.

Capacity Focused DSM[1]	Net Levelized Utility Cost ($/kW-yr)
Capacity Rate Structures	
Residential CPP & TOU	n/a
Residential EV TOU	n/a
Total Capacity Rate Structures	n/a
Capacity Programs	
Demand Response	$152
Transmission Load Curtailment	[redacted]
Non-Wires Alternative Program - Cross Sector	n/a
Total Capacity Programs	$134
Capacity Focused: Program Enabling Total	n/a
Total Capacity Programs, Rate Structures & Program Enabling	$152

1. Capacity levelized costs do not include regional transmission and distribution benefits, which would be an additional benefit stream that would further lower net levelized costs. Regional transmission and distribution benefits have been included in benefit-cost ratios in Table 8.

Table 8 below presents benefit cost ratios of actual DSM electricity savings achieved from April 1, 2022 through March 31, 2024. The cost-effectiveness results reflect the Utility Cost Test, using BC Hydro's long-run marginal cost as the avoided cost of energy and capacity, with Low Income and Indigenous programs included at the portfolio level, in accordance with the June 2023 amendments to the DSM Regulation[6]. The Ratepayer Impact Measure (**RIM**) benefit-cost ratio is also provided to comply with Directive 42 from the BCUC decision on BC Hydro's 2008 LTAP, however BC Hydro notes that the DSM Regulation precludes the use of the RIM in determining cost effectiveness of a demand-side measure.

6 Details on the amendments can be found at the following link: Ministerial Order 193/2023 (gov.bc.ca)

Table 8 Benefit Cost Ratios of Electricity Savings: Fiscal 2023 to Fiscal 2024

Benefit Cost Ratios[1]	LRMC	
	Utility Cost Test	Ratepayer Impact Measure Test
Energy Efficiency Rate Structures		
Transmission Service Rate	72	0.7
Energy Efficiency DSM Programs		
Residential Sector		
Low Income	n/a	n/a
Non Integrated Areas	n/a	n/a
Retail	2.4	0.8
Home Renovation Rebate	5.1	0.9
Energy Efficiency Residential Sector Total	4.4	0.9
Commercial Sector		
LEM-C	3.5	0.9
New Construction	3.3	0.9
Energy Efficiency Commercial Sector Total	3.5	0.9
Industrial Sector		
LEM-I	3.8	0.8
Energy Efficiency Industrial Sector Total	3.8	0.8
Total Energy Efficiency Programs	**3.9**	**0.9**
Total Energy Efficiency Programs & Rates	**4.7**	**0.8**
Capacity Rate Structures	n/a	n/a
Capacity Programs		
Demand Response	0.9	0.9
Transmission Load Curtailment	1.8	1.8
Non-Wires Alternative Program - Cross Sector	1.1	1.1
Total Capacity Programs	**1.3**	**1.3**
Capacity Focused: Program Enabling	n/a	n/a
Total Capacity Programs, Rate Structures & Program Enabling	**1.2**	**1.2**
Portfolio (EE & CF) Supporting Initiatives	n/a	n/a
Portfolio (EE & CF) Energy Management Activities	n/a	n/a
Codes and Standards	n/a	n/a
Total DSM Portfolio[2]	**2.1**	**0.7**

Notes:

[1] To align with the cost-effectiveness calculations for the DSM Plan as shown in Exhibit B-10 of BC Hydro's F23-F25 RRA, this report uses a long-run marginal cost (**LRMC**) of $65 per MWh based on the values presented in Appendix L of Exhibit B-1 of the 2021 Integrated Resource Plan Application. The Updated 2021 IRP revised the LRMC to $70 per MWh, however, the cost-effectiveness of actual DSM expenditures is calculated using the same LRMC as was in place at the time the plan was developed, to allow for easier

comparison to planned values. Using an LRMC of $70 per MWh would improve the benefit-cost ratios shown in Table 8.

[2] Energy management activities, supporting initiatives costs, technical trials and codes and standards costs are included at the portfolio level. Costs and savings for low income, social housing & indigenous programs are also included at the portfolio level in accordance with the June 2023 amendments to the DSM Regulation.

5 Non-Integrated Area Activity

BC Hydro's fiscal 2024 DSM expenditures and electricity savings for the Non-Integrated Area (NIA) program are shown as a line item within Table 1 and Table 5 through Table 8, along with all other programs.

5.1 NIA Program Description

The main components of the NIA program include:

- Indigenous Communities Conservation Program (**ICCP**), which contains two offers:
  - **Home Energy Check-up**: provides free energy saving products, salary support and installation training for Indigenous communities to hire local installers to conduct home energy upgrades such as energy efficient lighting, high performance faucets and showerheads, and basic draft proofing, and to assess homes for additional energy savings opportunities; and
  - **Home Energy Upgrade Rebates**: offers training to Indigenous communities and their contractors to complete advanced home energy upgrades and provides high-value rebates to support the cost of those upgrades (e.g., insulation, windows, doors, ventilation, heat pumps, etc.).
- Mid-way through fiscal 2024, BC Hydro partnered with the Government of BC to support the DSM stream of the Community Energy Diesel Reduction (**CEDR**) program administered by the New Relationship Trust. Incentives for NIA communities to implement energy efficiency improvements in existing homes are now accessed through the CEDR program, rather than through BC Hydro's ICCP Home Energy Upgrade Rebates.

- The NIA program continues to provide support to Indigenous communities through the Indigenous Climate Action Network (**I-CAN**), a program administered by the Coastal First Nations Great Bear Initiative in partnership with the Government of BC and BC Hydro. I-CAN offers funding to hire a full-time staff position (**Climate Action Coordinator**), as well as individual and peer networking support, including training and mentorship. Climate Action Coordinator (**CAC**) work includes planning and implementing energy efficiency, renewable energy generation, and climate change adaptation projects for their community.

For Indigenous communities that choose not to participate in the Indigenous Communities Conservation Program and for all other customers within the NIA, the following offers are available:

- Energy Savings Kits: free energy saving products are offered to NIA residential customers that they can install in their homes;
- Home Renovation Rebates: NIA residential customers are offered higher rebates on eligible home energy upgrades;
- Business Energy Savings Incentives: NIA commercial customers, including Indigenous Nations, are eligible for higher incentives through this program; and
- Commercial Building Energy Efficiency Program: BC Hydro contractors provide free installations of energy efficient products and equipment in commercial buildings.

5.2 Fiscal 2024 NIA Program Performance

Capacity Building Activities

In fiscal 2024, our continued investment in the I-CAN enabled five Climate Action Coordinators to continue their work in the Coastal First Nations communities of Old Massett, Skidegate, Heiltsuk, Nuxalk and Gitga’at, and four additional Climate Action Coordinators were put in place as part of the I-CAN expansion in the NIA Indigenous

communities of Dease River First Nation, Uchucklesaht Tribe, Ulkatcho First Nation and Kwadacha First Nation.

In fiscal 2024, activities within the I-CAN resulted in the following skills and jobs in clean energy for participating communities:

- 23 people receiving training;
- 7 jobs created for women;
- 6 jobs created for youth; and
- 22 jobs created for Indigenous peoples.

Energy Savings Projects/Activities

Electricity savings in the NIA program were 0.03 GWh in fiscal 2024. These savings were realized through BC Hydro's ICCP Home Energy Check-up offer, Commercial Building Energy Efficiency Program offer and Energy Savings Kit offer.

- Four NIA communities participated in ICCP Home Energy Check-up offer, resulting in home assessments and upgrades being undertaken in 265 homes. Training sessions were delivered to community members to undertake the assessments and install the products.
- 11 buildings within one NIA community received lighting upgrades through the Commercial Building Energy Efficiency Program offer, with planning underway for upgrades at two other NIA communities.
- 101 Energy Savings Kits were installed.

As described earlier, in fiscal 2024 BC Hydro joined in partnership with the Government of BC to support the DSM stream of the Community Energy Diesel Reduction (**CEDR**) program administered by the New Relationship Trust, and incentives for NIA communities to implement more advanced energy efficiency improvements in existing homes are now accessed through the CEDR program,

rather than through BC Hydro's ICCP Home Energy Upgrade Rebates. There were delays in the start to this new partnership, and as a result it was not launched until mid way through fiscal 2024. Three communities have signed incentive agreements through CEDR in fiscal 2024 to complete advanced home energy upgrades in their communities. However, these projects were not completed in fiscal 2024.

5.3 Planned Actions and Mitigation Measures

A key component to enable implementation of DSM projects, and Indigenous communities' participation in the clean energy transition more broadly, is capacity development in Indigenous communities.The expansion of the I-CAN network and the additional Climate Action Coordinator positions in place across the NIA, is intended to support this longer term goal.

In addition, our new partnership with the Government of BC and the New Relationship Trust through the CEDR program will increase support for Indigenous communities in the NIA by both providing higher incentives for energy efficient upgrades and increasing the total funding available, which increases the number of projects that can be supported. Enabling energy efficiency projects led by Indigenous communities provides them with greater control over their energy demand, and can contribute towards other socio-economic benefits such as reduced energy costs, improved health outcomes, and skills development and job opportunities in the green building industry.

BC Hydro believes that our continued partnerships with Indigenous organizations and government partners, through the I-CAN and CEDR programs, will reduce barriers for NIA Indigenous communities to advance energy efficiency by providing increased funding and pathways for capacity building and project support. In fiscal 2024, we worked closely with our partners in the CEDR program to make changes to the application intake process. Effective June 2024, the DSM stream of the CEDR program will have an open application intake process to enable Indigenous communities to bring projects forward on a continuous basis.

Additionally, the annual funding caps are being increased so that program applicants can receive more funding per project per year.

The June 2023 amendments to the DSM Regulation, which have added Indigenous DSM programs to the adequacy requirements of the regulation, and have specified that Indigenous programs are considered to be cost-effective if the overall DSM portfolio is cost-effective, will further support activities within the NIA program.

6 Operating Expenditures for Fiscal 2024

Operating expenditures related to supporting BC Hydro's DSM activities in fiscal 2024 totalled $526,000[7]. Table 9 below presents these operating expenditures in fiscal 2024.

Table 9 Operating Expenditures for Fiscal 2024

	($000)
Labour	404
Consultants/Contractors/Temp Labour	7
Other	116
Total	**526**

7 Low Carbon Electrification Expenditures

Directive 49 of the F20-F21 RRA Decision directed BC Hydro to report on the low carbon electrification (**LCE**) expenditures within the DSM Regulatory Account, "clearly allocated to the applicable classes defined in section 4 (3) (a), (b), (c) or (d) of the GGRR, including a consolidated table with a break down between the Initial LCE and BC Hydro LCE projects and programs."

As discussed in the Fiscal 2023 Annual Report on DSM Activities, since June 2022 BC Hydro no longer identifies, and recovers costs for, its LCE activities as a prescribed undertaking under the GGRR, and therefore Directive 49 is not applicable

[7] DSM operating expenditures are not included in earlier tables.

to these expenditures. Rather, BC Hydro incurs, and will recover, the expenditures for LCE activities pursuant to the Direction to the British Columbia Utilities Commission Respecting Load Attraction and Low-Carbon Electrification (**the Electrification Plan Regulation**). BC Hydro will report on the LCE activities as defined under the Electrification Plan Regulation in BC Hydro's next Revenue Requirements Application in compliance with Directive 6 of Order G-91-23.

BC Hydro notes that a small amount of legacy expenditures for activities defined as "prescribed undertakings" under the GGRR were incurred in fiscal 2024, and details on these expenditures are described in section 4.2 of BC Hydro's GGRR Fiscal 2024 Annual Report and also shown in Table 10 below.

Table 10 GGRR Low Carbon Electrification Expenditures for Fiscal 2024

Initial LCE Projects		
GGRR Regulation Subsection	Projects	F2024 ($ 000)
4(3)(a)	Project 4	$750
Total		**$750**

BC Hydro
Power smart

Report on Demand-Side Management Activities for Fiscal 2024

Appendix A

Program Summaries

Program Summaries

This appendix has been added to include further program details in accordance with the recommendation made in BCUC Decision G-91-23 on BC Hydro's Fiscal 2023 to Fiscal 2025 Revenue Requirements Application "that BC Hydro report on key accomplishments at the measure level within its annual DSM reporting. As a representative example, we highlight the level of detail provided in the most recent FortisBC Energy Inc. Natural Gas Demand-Side Management Programs Annual Report." As such, the appendix includes more granular descriptions of the components of each program and key accomplishments in fiscal 2024 at a level of granularity similar to that provided by Fortis in their annual reports.

Note, in previous annual reports, we provided a standalone section on mitigation measures that have been undertaken or are planned to address areas where cumulative energy savings are below plan. This year, in cases where program savings are underperforming, mitigation measures to address them are provided under the applicable program section.

Low Income

Program Overview

BC Hydro's Low Income program supports some of our most vulnerable customers in saving energy, reducing their electricity bills and realizing other benefits they may be seeking such as improved home comfort and health outcomes. BC Hydro recognizes the importance of having targeted programs that address the unique circumstances and needs of these customers.

The Low Income program helps BC Hydro's low income customers reduce their energy consumption and lower their BC Hydro bills. Income qualified households in both owner occupied and rental accommodations are eligible. Energy savings kits are used as a mechanism to attract qualified participants into deeper savings opportunities including the Energy Conservation Assistance Program and Income Qualified Heat Pump and Weatherization Rebate Offer.

The program also supports Indigenous communities on the integrated system through our Indigenous Communities Conservation Program offer. This offer provides free energy savings products, training and salary support to hire community members to install the products and review energy upgrade opportunities in homes, and also provides rebates for advanced weatherization measures.	
Fiscal 2024 Program Highlights/ Key Accomplishments	• BC Hydro partnered with the Province of BC to co-fund and deliver the energy efficiency component of the CleanBC Income Qualified Program[1], to reach a greater number of participants with deeper savings. • In partnership with the Province and FortisBC, we initiated work on designing a joint solution that enables Indigenous-led energy efficiency projects in new and existing homes and community buildings on the integrated system.
Target Market	Lower Income Residential Customers (Statistics Canada's Low Income Cut-off threshold +60%) and indigenous communities. Both owner occupied and renters.
Key Components	Energy Savings Kits
	Energy Conservation Assistance Program
	Income Qualified Heat Pump and Weatherization Rebates
	Indigenous Communities Conservation Program (**ICCP**): • Home Energy Check-up • Home Energy Upgrade Rebates
Key Technologies	Ductless and Central Air Source Heat pumps Insulation in ceiling, crawl, wall and underbelly Windows Draftproofing Energy savings kits (basic measures including LED lamps, faucet aerators, window film)

[1] As of June 2024 this program is being replaced by the CleanBC Energy Savings Program.

Participation	Energy Savings Kits	10,887
	Energy Conservation Assistance Program	8,254
	Income Qualified Program	1,315
	ICCP Home Energy Check-up	116
	ICCP Home Energy Upgrade Rebates	124
Mitigation Measures	Cumulative electricity savings in fiscal 2024 were below plan as a result of incorporating the findings of the most recent impact evaluation. We are in the process of designing a new Low Income solution with the aim of delivering deeper savings, including heat pumps and insulation measures.	

Non-Integrated Areas

Please refer to section 5.2 for a discussion on the performance of the Non-Integrated Areas DSM program.

Retail

Program Overview

BC Hydro seeks to influence our residential customers to purchase more energy efficient products and leverages the retail channel to activate these transactions. The Retail program advances the adoption of more energy efficient products by working with market partners to have the energy efficient products available on store shelves throughout B.C. at affordable price points, supported by knowledgeable sales staff.

The Retail program reaches large numbers of customers through the convenient and familiar retail channels throughout the year with incentives targeting affordable, low-barrier energy management solutions for residential customers (owners and renters). Incentives are offered via convenient instant discounts at retail point of sale or via online rebate applications.

To complement retail incentives an online product marketplace (the ‘Power Smart Shop’), provides a convenient one-stop-shop to research and select energy using products where all relevant product,

pricing, rebate, efficiency, and energy costs for multiple products and retailers are consolidated. The site does not sell products, but instead links customers to retail partners for purchases.		
Fiscal 2024 Program Highlights/ Key Accomplishments	• Successful launch for efficient Air Conditioner campaign • Year round promotion of the online Power Smart Shop which increased traffic and visibility	
Target Market	Residential customers who purchased product(s) through the retail channel. Can include both owner occupied and renters. Key partnerships are with retailers like Canadian Tire, Best Buy, The Home Depot, Costco and a variety of appliance, lighting, electronics, and home improvement product manufacturers	
Key Components	Channel partnerships	
	Product Incentives	
	Online Power Smart Shop	
	Advertising and promotions (often supplemented by the retailer/manufacturer partners)	
Participation	Product Rebates	112,487
	Power Smart Shop	55,717
Mitigation Measures	Cumulative electricity savings in fiscal 2024 were below plan, as described in Table 3, due to removal of LED bulbs from the program and a downward adjustment on thermostat savings. New measures (e.g. room Air Conditioners and Purifiers) are expected to have higher uptake going forward as we increase support for stores and supply chain. New measures are also expected to increase exposure to and use of Power Smart Shop.	

Home Renovation Rebate

Program Overview The Home Renovation Rebate program focuses on customers with electric heat. The Home Renovation Rebate program motivates these customers to undertake energy efficiency upgrades to

their existing homes, primarily focused on lowering their space heating load and hence making their electric bills more affordable. The program promotes upgrades to building envelopes (insulation, windows, draft proofing), space and hot water heating systems, with a combination of rebates for single and multi-upgrade improvements.

In addition to direct incentives, the program communications are aimed at program awareness and participation and educating consumers on energy efficient home renovations. Contractors continue to be a key sales channel for the program. The Home Renovation Rebate program and Power Smart Alliance continue to focus on working with contractors, providing training, sales support, and installation best practices to improve the availability and quality of home energy retrofit services in B.C. This has been further augmented with the through the Home Performance Stakeholder Council **(HPSC**), a third party industry driven association. These initiatives leverage our BC Hydro Alliance infrastructure to work closely with contractors, provide best practice training and our website provides a directory for customers to find and drive leads to contractors that have earned this designation.

Fiscal 2024 Program Highlights/ Key Accomplishments	• Supported the development of industry capability and capacity by working with the HPSC to grow the qualified Home Performance Contractor network to over 750 members across HVAC, Insulation and Windows & Door contractors. • Support for the adoption of cold climate heat pumps has led to an upward trend in adoption through the program.	
Target Market	Residential customers with high electric heating load (owner and renter occupied buildings)	
Key Components	Incentives for heat pumps, building envelope improvements, ventilation upgrades, and a multi-measure bonus.	
	Coordinated application and partner rebates	
Key Technologies	Heat pumps and Insulation	
Participation	Building Envelope	2,673
	Heat Pump	4,139
Mitigation Measures	Not applicable - cumulative electricity savings in fiscal 2024 were above plan.	

Residential Energy Management Activities

Program Overview

The objective of the Residential Energy Management Activities is to provide information and tools that assist customers to optimize their energy use. These activities support BC Hydro's residential energy efficiency programs, planned time varying rates, and codes and standards efforts in achieving their respective energy management and market transformation objectives. The three key elements of the energy management activities include the behaviour program, access to energy support tools, and industry support. Residential Energy Management Activities enable energy savings directly through the Behaviour program, and also enable and support savings that are reported under other residential sector programs.

The centrepiece of the Residential Energy Management Activities is the Behaviour program, designed to encourage residential customers to adopt more energy conscious behaviours and practices that lead to electricity savings and lower bills. The program is marketed under the Team Power Smart banner and relies on well established behavioural change methods such as feedback, social norms and challenges. Customers do not need to invest in products they just need to make changes to how they use the electricity using products they already own. The high level of engagement and education associated with Team Power Smart also supports other Residential programs by raising awareness of these offers.

Fiscal 2024 Program Highlights/ Key Accomplishments	• Successful Team Power Smart promotion drove participation and energy savings beyond targets. • Advancement of HydroHome pilot in preparation for Fiscal 2025 rollout • Various functionality enhancements, including to accommodate Time-of-Day rates and Peak Saver.
Target Market	All Residential customers including both owners and renters
Key Components	Detailed consumption feedback
	Energy reduction challenges with membership
	BC Hydro Alliance of Energy Professionals (across all sectors)
	External Workforce Capability Building (across all sectors)

	Customer Information Support	
Key Technologies	Key Behaviour change approaches used: • Detailed Feedback (Energy Visualization Portal, HydroHome) • Challenges (Team Power Smart) • Social Norms (Team Power Smart) Program delivered through web applications in MyHydro (Team Power Smart, Energy Visualization Portal) and 3rd party app (HydroHome)	
Participation	Team PowerSmart	127,109
	Energy Visualization Portal	45,715
Mitigation Measures	Not applicable - Cumulative electricity savings in fiscal 2024 were above plan.	

Leaders in Energy Management – Commercial

Program Overview The Leaders in Energy Management – Commercial (**LEM-C**) program is designed to capture energy efficiency energy savings at commercial buildings and facilities by helping customers overcome the financial barriers to energy efficiency. Customers have access to Energy Efficiency Feasibility Study funding to build the business case for electrical efficiency projects. Customers then have access to project incentives to reduce the payback required to make these projects financially feasible if needed. Customers can also access capital incentives for upgrades to existing buildings/plants and retrofits. When combined with the Commercial Energy Management Activities, a customer can develop a comprehensive plan to continue saving energy at their building or facility.	
Fiscal 2024 Program Highlights/ Key Accomplishments	• Increased incentive levels for large commercial customers and opened eligibility of Self Serve Incentives to increase participation rates to enable a ramp up of savings in line with the Updated 2021 IRP.

	• Initiated design of a new offer for apartment buildings (MURBs), in partnership with the Province of BC, municipalities, and industry organizations. • Initiated re-design of Social Housing offer, in collaboration with BC Non-Profit Housing Association and BC Housing.	
Target Market	Commercial customers requiring support to make energy management decisions and implement conservation initiatives and projects, including the social housing sector.	
Key Components	Energy Audits and Studies	
	Project Incentives	
	Continuous Optimization	
Key Technologies	Retrofit of existing Commerical buildings: • Lighting upgrade • Heating, ventilation, and air conditioning (**HVAC**) and lighting controls upgrade, recommissioning • Variable volume conversion for fan and pumping systems (including variable frequency drives) • Heat recovery system • High efficiency equipment replacement (motors, chillers etc) • High performance building envelope • Heat pump for domestic hot water Additional technologies for Business Energy Savings Incentives: • Variable speed Electronically commutated motor circulator pump • Economizer controller sensor for roof top units • Refrigeration system – add anti-sweat heater humidistat control, add doors to open displays	
Participation	Custom projects	94
	Business Energy Savings Incentive projects	334

	Social Housing	11
	Continuous Optimization projects	93
Mitigation Measures	Not applicable - Cumulative electricity savings in fiscal 2024 were above plan.	

Commercial Energy Management Activities

Program Overview Commercial Energy Management Activities provide customers support through Strategic Energy Management training and resources (including Commercial Energy Manager and Building Automation Systems Specialist funding), audits, whole building investigation, and support required to enable the customer to implement, operate, and maintain facility changes through participation in the LEM-C program. As part of these activities, customers are enabled to better understand and use customer energy data to improve their energy performance and increase building efficiency. The flexible design of the activities and the established relationships with the different customer segments establishes a platform for delivering future new offers such as capacity focused DSM. In addition, customers have access to trained and qualified trade allies/supply chain partners to help them assess facility opportunities, complete their projects, and access energy information support. Customer interest from utilizing energy information generates market pull, while our partnerships (supply chain and other) can lead to market push, ultimately resulting in the increased penetration of energy efficient technologies and energy management solutions. These relationships with industry will also allow for a relatively seamless addition of new offers in the future.	
Fiscal 2024 Program Highlights/ Key Accomplishments	Launch of funded Building Automation Systems Specialist role following a successful 2023 pilot.
Target Market	Commercial customers with Key Account Managers
Key Components	Energy Management Assessment and Plan
	Energy Audits
	Strategic Energy Management – Commercial Energy Manager
	Building Automation Specialists
	Energy Wise Network

	BC Hydro Alliance of Energy Professionals	
	External Workforce Capability Building	
Key Technologies	n/a	
Participation	Energy Managers	65
Mitigation Measures	Not applicable – this program supports the energy savings that are realized through other programs.	

Leaders in Energy Management – Industrial

Program Overview

The Leaders in Energy Management – Industrial (**LEM-I**) program is designed to capture energy efficiency energy savings at industrial facilities by helping customers overcome the financial barriers to energy efficiency. Customers have access to Energy Efficiency Feasibility Study funding to build the business case for electrical efficiency projects. Customers then have access to project incentives to reduce the payback required to make these projects financially feasible if needed.

The LEM-I program provides business case support to enable the customer to implement facility changes. Customers can also access capital incentives for upgrades to existing plants or to support efficient expansions, new plant design, or retrofits. When combined with the industrial energy management activities, a customer can develop a comprehensive plan to continue saving energy at their building or facility.

Fiscal 2024 Program Highlights/ Key Accomplishments	• Strong participation in horticultural lighting projects. • Changed the funding caps for studies and incentives to encourage larger more complex energy efficiency projects to be identified and implemented, to enable a ramp up of savings in line with the Updated 2021 IRP.
Target Market	Large Industrial (Transmission Service Rate) Customers. Approximately 170 sites. All Industrial Distribution (General Service Rate) customers with a focus on the largest 2,000.

Key Components	Energy Audits and Studies	
	Project Incentives	
	New Plant Design	
Key Technologies	• Efficient pumps • Efficient compressors • Variable frequency drives • Efficient fans • Lighting & controls	
Participation	Custom Projects – Industrial Transmission	31
	Custom Projects – Industrial Distribution	56
	Self Serve Incentive projects	140
Mitigation Measures	Not applicable - cumulative electricity savings in fiscal 2024 were below plan due to delays in project completion. We expect the projects to complete in fiscal 2025.	

Industrial Energy Management Activities

Program Overview

Industrial Energy Management Activities focus on large customer segments with common interests and energy opportunities, including Pulp and Paper, Wood Products, Mining, Oil and Gas, Chemical, Cement, Manufacturing, Food and Beverage, Agriculture and Transportation.

The Industrial Energy Management Activities provide Strategic Energy Management (**SEM**) training and resources, including Industrial Energy Manager and SEM Cohort funding. Audits and support are provided to enable the customer to implement and maintain facility changes, through participation in the LEM-I program. As part of these activities, Energy Monitoring and Targeting systems are implemented at customer sites to understand and use customer energy data to improve energy

performance and increase operational efficiency. The flexible design and the relationships with the customers create a platform for new offers in the future such as capacity-focused DSM.		
Fiscal 2024 Program Highlights/ Key Accomplishments	• Increase in number of funded energy managers and Cohorts as well as support for these resources in alignment with the accelerated ramp up in the Updated 2021 IRP.	
Target Market	Active partnerships with 124 Industrial sites. Transmission Service Rate Customers. Approximately 170 sites. Largest 2,000 Industrial Distribution (General Service Rate) Customers.	
Key Components	Strategic Energy Management – Industrial Energy Manager	
	Strategic Energy Management – Cohort Energy Manager	
	Strategic Energy Management – Regional Energy Manager	
	Energy Monitoring and Targeting	
	Energy Audits	
	BC Hydro Alliance of Energy Professionals	
	External Workforce Capability Building	
Key Technologies	n/a	
Participation	Energy Managers	43
	Cohort Participants	57
Mitigation Measures	Not applicable – this program supports the energy savings that are realized through other programs.	

Capacity-Focused Demand-Side Management Programs

Program Overview The objective of Capacity Focused Demand-Side Management (**CFDSM**), also commonly called demand response programs, is to reduce load in a defined peak period or shift load outside of a defined peak period to address both system and local capacity constraints.

Local capacity constraints are addressed through non-wires alternatives (**NWA**) projects. NWA projects are intended to defer or remove the need to invest in capital wired projects when increased activities and incentives for energy efficiency and demand response programs are pursued in localized areas. Using the same approach, NWA projects can also be used to provide relief until capital projects with longer lead times are built. In addition to addressing system and localized constraints, our program investigates and pursues technical trials and pilots, to allow us to expand our knowledge in the area of CFDSM.		
Fiscal 2024 Program Highlights/ Key Accomplishments	• Initiated a new load relief initiative for constrained feeders. • Implemented a short-term load curtailment program in the winter of fiscal 2024 and began design on long-term industrial load curtailment program. • Developed and launched Peak Rewards and Demand Response for Business programs.	
Target Market	All sectors, residential, commercial and industrial	
Key Components	Demand Response programs (Peak Saver, Peak Rewards, Demand Response for Business)	
	Non-Wires Alternatives	
	Technology Trials and Program Enabling Activities	
Key Technologies	Direct load control devices: • EV chargers • Thermostats • Water heaters • Batteries	
Participation	Residential Peak Saver	33,271
	Residential Peak Rewards	8,018
	Demand Response for Business (Behavioural)	19

	Transmission - Load Curtailment	1
Mitigation Measures	Not applicable – savings in fiscal 2024 were on plan.	