

Carbon Neutral

Carbon Neutral Government 2024 Year in Review

Introduction

Under the legislated, award-winning Carbon Neutral Government program, B.C.'s public sector must maintain a net impact of zero greenhouse gas (GHG) emissions. Public sector organizations (PSOs) under this program include health authorities, school districts, universities, colleges, institutes, Crown corporations, and Provincial Government offices. 2024 marked the 15th consecutive year of public sector carbon neutrality in B.C.

This Year in Review summary report highlights actions taken by PSOs in 2024 to reduce emissions and the B.C. public sector's progress towards CleanBC targets for public sector buildings and fleet vehicles. While there has been some progress, the public sector is not on track to meet these targets, underscoring that there is more work to do.

For the 2024 reporting year, B.C.'s 130 PSOs, including Provincial Government, reported 770,239 tonnes of emissions of carbon dioxide equivalent (tCO₂e) from their operations. This report summarizes the emissions reported by PSOs over the 2024 calendar year with a breakdown by sector and source and discusses the impact of weather on emissions.

Further details, including a breakdown of emissions by PSO and the offsets portfolio for Carbon Neutral Government 2024, are included in the appendices.

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Background

The B.C. public sector plays an important role as a climate action leader by adopting forward-thinking policies, setting ambitious targets, and exploring innovative approaches to climate action. The [2018 CleanBC Plan](#) commits government to two key emission targets for the public sector to reach by 2030, compared to the 2010 baseline¹:

- Reduce building emissions by 50%
- Reduce fleet emissions by 40%

B.C.'s Carbon Neutral Government (CNG) program was established in 2010 and is the first of its kind in North America. The CNG program requires the public sector to monitor, report and track progress on emission reductions. Under the CNG program, each PSO:

- Measures GHG emissions from their operations
- Plans and takes action to reduce those emissions
- Purchases offsets to achieve net zero emissions
- Reports publicly through an individual PSO-specific Climate Change Accountability Report

The total emissions and offsets reported in this Year in Review meet the reporting requirements set out in the Carbon Neutral Government Regulation under the Climate Change Accountability Act.

¹ Baseline numbers are subject to change from year to year, reflecting methodological improvements and scientific advancements in greenhouse gas quantification.

Public sector emissions breakdown and trends

In 2024, B.C.'s 130 PSOs reported 770,239 tCO₂e of total GHG emissions from their operations. This total is comprised as:

- 751,421 tCO₂e of **consumption emissions**, which are GHG emissions from consumption of energy, paper, etc.
- 18,816 tCO₂e of **fugitive emissions**, which are GHG emissions from unintentional releases (leaks) of gases such as hydrofluorocarbon (HFC) refrigerants from equipment

The 2024 breakdown of emissions by source is shown in Figure 1 to the right. Since the CNG program began, buildings have consistently contributed over 70 percent of public sector emissions, and 2024 was no exception at 73 percent. In 2024, fleets accounted for 22 percent of public sector emissions, while paper, travel, and fugitive emissions together represented approximately 5 percent of total emissions.

Figures 2 and 3 below illustrate the year-over-year emission trends from energy consumption in public sector buildings and fleets.

Figure 1. 2024 emissions by source

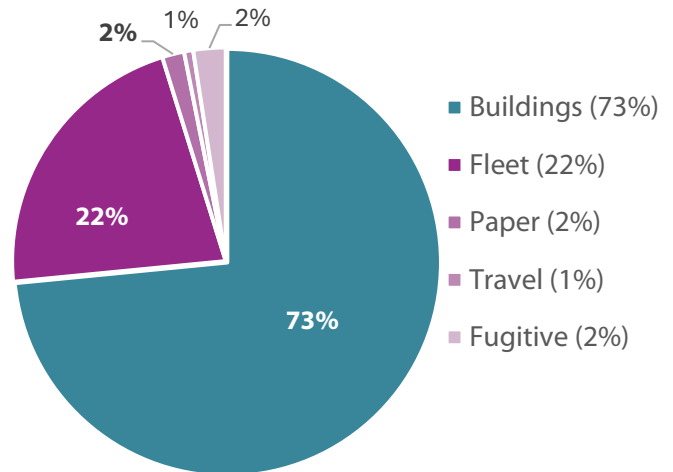
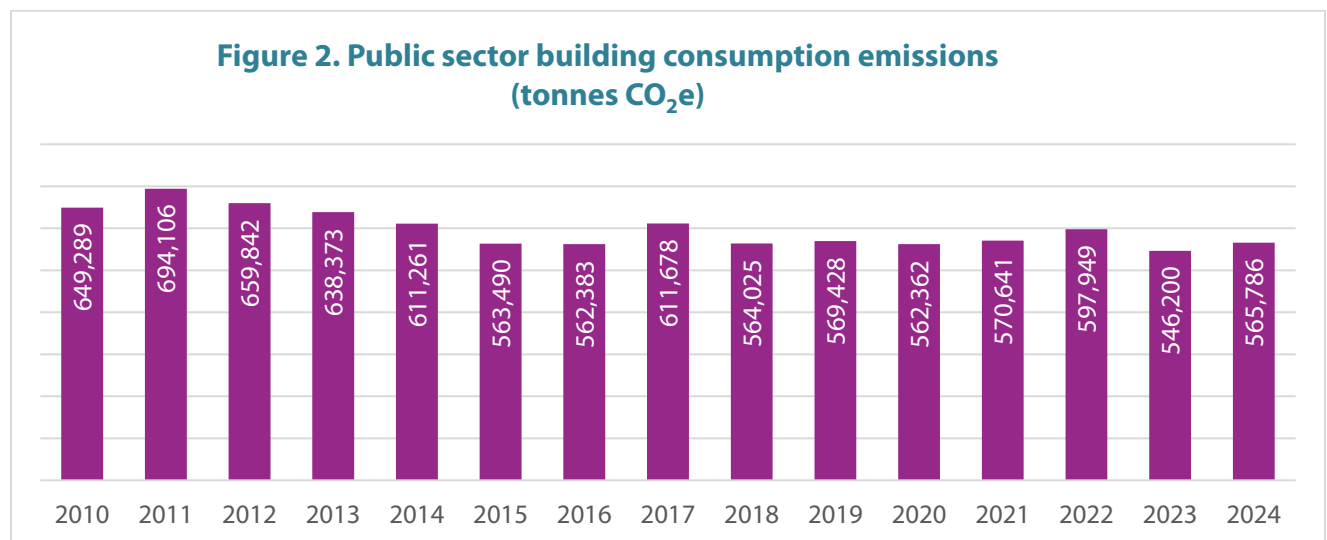
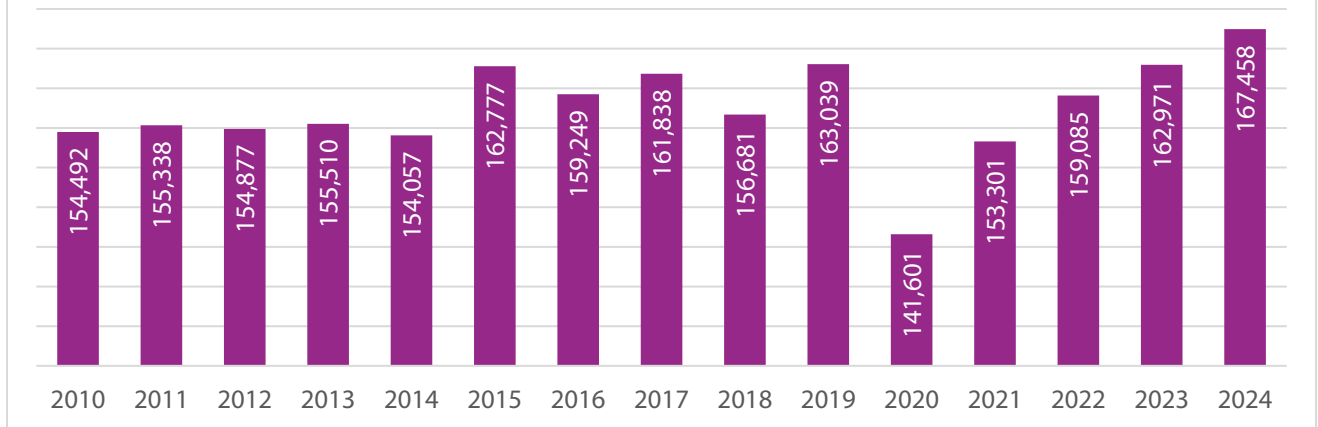


Figure 2. Public sector building consumption emissions (tonnes CO₂e)



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Figure 3. Public sector fleet consumption emissions (tonnes CO₂e)



2024 progress to targets

While the B.C. public sector has made some progress in reducing emissions, progress to date falls short of what is needed to meet Clean BC targets.

As of 2023, carbon dioxide (CO₂) emissions from biogenic sources² are tracked but are no longer included in B.C.'s total GHG emissions when measuring progress towards targets. Additionally, progress towards public sector targets considers consumption emissions, while fugitive emissions are tracked separately.

In 2024:

- Total building consumption emissions, including biofuels, were 13 percent lower than 2010 levels.
- Fleet consumption emissions were eight percent higher than in 2010.
- When excluding biofuels, public sector building emissions saw a 23 percent reduction, and fleet emissions an 11 percent reduction, compared to 2010.

Although paper, business travel, and fugitive emissions do not have specific CleanBC targets, these sources are tracked and reported annually.

- Paper emissions decreased by 35 percent compared to 2010 levels, mainly due to reduced paper consumption. Further emission reductions can be achieved by choosing paper types with a lower carbon footprint, such as recycled or alternative paper³.

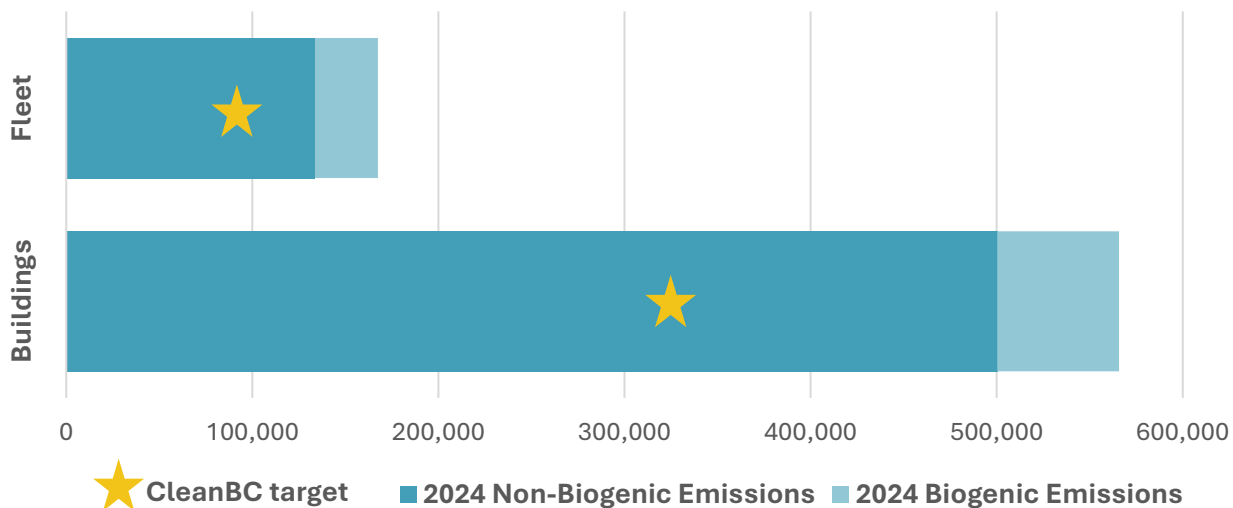
² Biogenic fuels are derived from biologically based materials other than fossil fuels, peat, and minerals (US EPA, 2011). Examples include wood waste and renewable natural gas for heating and biodiesel for vehicles.

³ Alternative paper refers to paper made from agricultural residues including sugarcane bagasse, wheat straw. etc. It excludes paper made solely from wood fibre

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- Business travel emissions⁴ decreased by 49 percent compared to 2010 levels, largely driven by reduced business travel. Further reductions can be achieved by choosing lower carbon transportation options, such as public transit.
- Fugitive emissions, particularly hydrofluorocarbon (HFC) refrigerant emissions, have always been in scope of the CNG program but were not previously considered significant. HFC emissions are now significant for some PSOs partly due to the transition away from Ozone Depleting Substances and towards HFCs. 2024 was the first year that PSOs broadly reported these emissions, totalling 18,816 tCO₂e.

Figure 4. 2024 building and fleet consumption emissions



⁴ Only Provincial Government is required to report business travel emissions; therefore, the reported reduction reflects business travel emissions from Provincial Government only.

2024 highlights

Fleets:

- School districts ordered 33 electric school buses in the 2024/25 fiscal year, increasing the province-wide total to 125.
- PSOs report⁵ having installed over 1,100 electric vehicle charging stations.
- Over half of PSOs that responded⁵ to the Public Sector Climate Leadership survey have a Clean Fleet Plan or are planning to develop one.
- Zero-emission vehicles (ZEVs) accounted for 32 percent of provincial government light duty vehicle acquisitions in 2024 and conventional hybrid vehicles accounted for 10 percent of light-duty vehicle acquisitions.

Fugitive refrigerants:

- Forty-one percent of PSOs reported fugitive refrigerant emissions in 2024, up from just five percent in 2023.
- Measuring HFC emissions is a critical first step in identifying the climate impact of these GHGs and opportunities for reduction. Fugitive HFC emissions are especially challenging to track because they result from unintentional leaks across a wide range of equipment, often without built-in monitoring.
- Despite these challenges, PSOs made significant progress in monitoring and reporting these emissions, demonstrating leadership and commitment to climate action.

Buildings:

- PSOs report⁵ that four out of every five new buildings completed in 2024 sought green building standard certification. BC Housing Design Guidelines and Construction Standards was the most common green building standard, followed by LEED Gold.
- Nearly half of PSOs conduct existing building commissioning to ensure building systems are optimized.

⁵ Based on response rate of 85% of PSOs.

Weather normalization

Year-over-year differences in weather affect the heating and cooling requirements in buildings. To enable year-to-year comparison of building-related emissions, energy consumption data is adjusted to remove the impact of weather – a practice known as weather normalization.

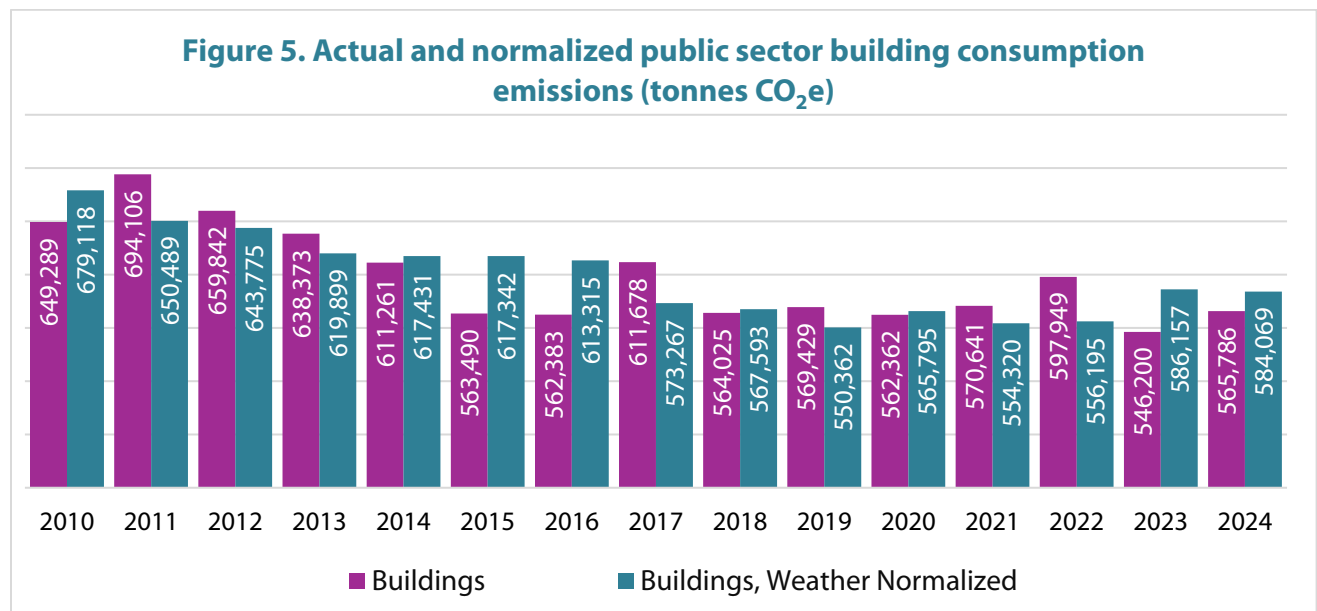
To weather normalize building emissions, the daily average temperatures for the calendar year are compared to the average daily temperatures over a 30-year period. The energy use reported in 2024 by PSOs to heat or cool buildings is then adjusted to reflect the average heating and cooling needs in the 30-year period.

2024's weather impact

Climate change has caused average temperatures in B.C. to trend upwards and make extreme weather more frequent. However, temperatures in 2024 were more moderate across the province than the previous three years⁶. Specifically, 2024:

- had the fifth lowest heating demand in the last 15 years of the CNG program, and
- was the median year in terms of summer cooling needs.

Figure 5 below shows that if 2024's weather had been similar to the average climate conditions of the baseline period (1981 to 2010), emissions in 2024 would have been approximately 18,000 tCO₂e higher than reported.



⁶ Calculations based on data collected from DegreeDays.net, covering 2010-2024. Data accessed from www.degree-days.net

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Appendix A - Summary of emissions and offsets

Table 1. 2024 Public sector emissions by GHG and by source

	Bio CO ₂ emissions (tCO ₂)	Non-bio CO ₂ e emissions (tCO ₂ e)	Total emissions (tCO ₂ e)
Scope 1			
Buildings (Direct fuel combustion)	65,431	460,052	525,483
Fleet (Mobile energy use)	33,792	133,666	167,458
Fugitive emissions		18,816	18,816
Scope 2			
Buildings (Purchased energy)		40,303	40,303
Scope 3			
Paper		12,841	12,841
Travel	34	5,303	5,337
TOTAL	99,258	670,979	770,239

Table 1 Notes:

- (1) Table 1 reports Scope 1, 2, and 3 emissions in accordance with international protocols.
 - a. Scope 1 emissions refer to direct emissions generated by an organization from sources it owns or controls. These include emissions resulting from the combustion of fossil fuels (e.g., natural gas for heating, gasoline for vehicle fuels), biogenic fuels (e.g., wood waste for heating, renewable fuels for fleet and stationary) and fugitive emissions (e.g., hydrofluorocarbons from air conditioning equipment).
 - b. Scope 2 emissions represent those produced by third parties in the production of energy purchased by B.C.'s PSOs (e.g., electricity).
 - c. Scope 3 emissions represent those produced by third parties in the production of goods and services purchased by B.C.'s PSOs (e.g., office paper, business travel⁷).
- (2) International protocols require biogenic CO₂ (Bio CO₂) emissions from combustion be reported separately from fossil combustion and biogenic non-CO₂ emissions.
- (3) For more information on how the B.C. public sector measured its emissions in 2024, please refer to the [2024 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions](#).
- (4) Non-bio CO₂e emissions in Table 1 include 61,299 tCO₂e emissions from public transit and school buses, which are offset exempt.
- (5) Due to rounding, numbers presented above may not add up precisely to the totals reported.

⁷ Only provincial government is required to measure, report and offset emissions from business travel.

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Table 2. 2024 emissions by public sector organization

Public sector organization	Emissions (tCO ₂ e)	Offsetable emissions (tCO ₂ e)	Bio-CO ₂ emissions (tCO ₂)	Public sector organization	Emissions (tCO ₂ e)	Offsetable emissions (tCO ₂ e)	Bio-CO ₂ emissions (tCO ₂)
BC PUBLIC SECTOR TOTAL	770,239	609,688	99,252	School Districts (Cont'd)			
Provincial Government Total	55,320	53,668	1,652	School District 50 - Haida Gwaii	895	829	7
Crown Corporations Total	157,942	84,312	31,952	School District 51 - Boundary	890	754	10
BC Family Maintenance Agency	20	20	0	School District 52 - Prince Rupert	901	897	5
BC Financial Services Authority	88	88	0	School District 53 - Okanagan Similkameen	874	559	16
BC Infrastructure Benefits	32	32	0	School District 54 - Bulkley Valley	1,145	856	20
BC Assessment Authority	255	252	3	School District 57 - Prince George	4,676	4,650	26
BC Council for International Education	5	5	0	School District 58 - Nicola-Similkameen	1,235	979	14
BC Games Society	2	2	0	School District 59 - Peace River South	2,828	1,946	40
BC Housing Management Commission	32,687	32,520	167	School District 60 - Peace River North	4,388	3,149	64
BC Hydro	31,397	30,602	796	School District 61 - Greater Victoria	5,395	5,362	32
BC Liquor Distribution Branch	5,335	5,304	31	School District 62 - Sooke	2,236	1,801	37
BC Lottery Corporation	829	193	636	School District 63 - Saanich	1,896	1,502	24
BC Pavilion Corporation	3,717	3,658	59	School District 64 - Gulf Islands	226	136	5
BC Transit	73,417	1,505	30,234	School District 67 - Okanagan Skaha	1,225	967	16
British Columbia Securities Commission	59	59	0	School District 68 - Nanaimo-Ladysmith	3,690	3,299	44
Columbia Basin Trust	287	286	1	School District 69 - Qualicum	1,790	1,261	27
Columbia Power Corporation	1	1	0	School District 70 - Alberni	872	751	12
Community Living British Columbia	112	110	2	School District 71 - Comox Valley	1,640	1,628	11
Destination BC	51	51	0	School District 72 - Campbell River	2,206	1,751	31
First People's Cultural Council	1	1	0	School District 73 - Kamloops-Thompson	6,811	5,119	94
Forest Enhancement Society of BC	9	8	0	School District 74 - Gold Trail	914	476	19
Forestry Innovation Investment	23	23	0	School District 75 - Mission	1,630	1,294	20
SkilledTradesBC	5	5	0	School District 78 - Fraser-Cascade	721	544	12
Innovate BC	14	14	0	School District 79 - Cowichan Valley	2,161	1,563	75
Insurance Corporation of BC	8,928	8,913	15	School District 81 - Fort Nelson	1,010	998	3
Knowledge Network Corporation	76	76	0	School District 82 - Coast Mountain	2,016	1,987	13
Legal Services Society	99	99	0	School District 83 - North Okanagan-Shuswap	3,797	2,607	50
BC Energy Regulator	385	377	8	School District 84 - Vancouver Island West	115	74	5
Infrastructure BC Inc.	15	15	0	School District 85 - Vancouver Island North	708	553	9
InBC Investment Corp	0	0	0	School District 87 - Stikine	414	412	2
Real Estate Foundation	1	1	0	School District 91 - Nechako Lakes	2,825	1,936	43
Royal BC Museum	73	73	0	School District 92 - Nisga'a	141	20	4
Transportation Investment Corporation	19	19	0	School District 93 - Conseil Francophone	1,092	1,087	4
Health Authorities Total	227,422	220,710	6,710	Universities & Colleges Total	157,282	99,998	57,258
BC Emergency Health Services	18,001	17,431	570	British Columbia Institute of Technology	6,331	6,304	27
Fraser Health Authority	42,293	42,081	212	Camosun College	2,764	2,751	10
Interior Health Authority	44,287	43,196	1,091	Capilano University	1,613	1,608	6
Louis Brier Home & Hospital	703	699	3	Coast Mountain College	943	937	6
Menno Hospital	419	417	2	College of New Caledonia	1,994	1,985	9
Mount St. Mary Hospital	321	319	2	College of the Rockies	934	917	5
Nisga'a Valley Health Authority	167	162	5	Douglas College	1,695	1,689	6
Northern Health Authority	22,963	22,823	140	Emily Carr University of Art and Design	105	105	0
Providence Health Care	8,416	8,109	307	Justice Institute of BC	700	694	6
Provincial Health Services Authority	18,380	18,290	90	Kwantlen Polytechnic University	2,437	2,428	10
St. Michael's Centre	315	314	1	Langara College	1,186	1,182	4
Vancouver Coastal Health Authority	42,137	41,912	224	Nicola Valley Institute of Technology	264	262	2
Vancouver Island Health Authority	29,020	24,957	4,063	Northern Lights College	2,179	2,167	11
School Districts Total	172,273	151,000	1,680	North Island College	1,087	1,083	4
School District 05 - Southeast Kootenay	3,221	2,696	32	Okanagan College	1,234	1,228	6
School District 06 - Rocky Mountain	1,891	1,393	25	Royal Roads University	1,021	302	719
School District 08 - Kootenay Lake	3,040	2,300	45	Selkirk College	1,100	1,014	85
School District 10 - Arrow Lakes	316	236	4	Simon Fraser University	25,735	6,773	18,961
School District 19 - Revelstoke	335	269	3	Thompson Rivers University	3,466	1,117	2,349
School District 20 - Kootenay-Columbia	1,860	1,571	19	University of British Columbia	73,205	44,958	28,246
School District 22 - Vernon	2,360	1,898	24	University of Northern British Columbia	9,103	2,408	6,695
School District 23 - Central Okanagan	6,955	5,549	60	University of The Fraser Valley	2,174	2,165	9
School District 27 - Cariboo-Chilcotin	3,949	2,587	70	University of Victoria	11,809	11,749	60
School District 28 - Quesnel School	1,675	1,010	31	Vancouver Community College	1,414	1,411	3
School District 33 - Chilliwack	4,623	3,607	55	Vancouver Island University	2,789	2,761	19
School District 34 - Abbotsford	4,614	3,952	75				
School District 35 - Langley	5,973	5,477	40				
School District 36 - Surrey	17,519	17,275	88				
School District 37 - Delta	2,650	2,634	16				
School District 38 - Richmond	5,954	5,764	35				
School District 39 - Vancouver	15,619	15,548	70				
School District 40 - New Westminster	1,006	1,002	4				
School District 41 - Burnaby	5,571	5,538	32				
School District 42 - Maple Ridge	3,605	3,586	19				
School District 43 - Coquitlam	7,031	6,935	55				
School District 44 - North Vancouver	3,595	3,515	17				
School District 45 - West Vancouver	1,731	1,721	10				
School District 46 - Sunshine Coast	772	765	7				
School District 47 - Powell River	943	738	14				
School District 48 - Sea to Sky	1,777	1,434	25				
School District 49 - Central Coast	325	253	11				

Notes:

- Due to rounding, numbers presented in Table 2 for each organization may not add up precisely to the totals reported.
- B.C.'s Crown Corporations, schools, universities, colleges and health facilities purchase offsets from the Ministry of Energy and Climate Solutions at \$25 per tonne of CO₂e to become carbon neutral.
- Emissions from public transit and school buses are offset exempt.
- Bio CO₂ emissions are produced from the combustion of biogenic fuels (and are offset exempt).
- A total of 607,619 offsets were included in the portfolio of offset projects for the 2024 Carbon Neutral Government commitment (see Table 3). From the 609,688 offsets required to address 2024 emissions, 2,069 offsets were subtracted to reflect adjustments to prior year reported emissions.

Table 3. Portfolio of offset projects for the 2024 Carbon Neutral Government commitment

Project	Sector	Project Type	Price / Tonne	Offset Units	Value
Low Emissions Facility ARC Resources, Dawson Creek	Oil and gas	Fuel switching	\$8.00	9,000	\$72,000
Electrification of Gas Production Plant (Noel) Blue Source, Dawson Creek	Oil and gas	Fuel switching	\$8.00	3,095	\$24,760
Electrification of Gas Processing Plant (Septimus) Blue Source, Taylor	Oil and gas	Fuel switching	\$8.00	32,589	\$260,712
Engine Fuel Gas Management (REMVue) Blue Source, Northeastern BC	Oil and gas	Energy efficiency	\$11.00	150	\$1,650
Natural Gas to Biomass Fuel Switch Canfor B.C. Sawmills – Chetwynd, Elko, Prince George	Forest – industry	Fuel switching	\$9.75	51,229	\$499,482.75
Cheakamus Community Forest Cheakamus Community Forest Society, Whistler	Forestry – land use	Forest carbon	\$14.00	3,000	\$42,000
Forest Conservation/Improved Forest Management Great Bear Rainforest, Haida Gwaii	Forestry – land use	Forest carbon	\$12.00	200,000	\$2,400,000
Forest Conservation/Improved Forest Management Great Bear Rainforest, North and Central Mid-Coast	Forestry – land use	Forest carbon	\$12.00	200,000	\$2,400,000
Forest Conservation/Improved Forest Management Great Bear Rainforest, South Central Coast	Forestry – land use	Forest carbon	\$11.97	108,026	\$1,292,505
Clean Tech Biomass Gasification Kruger Products, New Westminster	Forest – industry	Fuel switching	\$15.00	100	\$1,500
Landfill Gas Collection Columbia Shuswap Regional District, Salmon Arm	Waste – landfill	Landfill gas management	\$13.00	300	\$3,900
Switching to Biomass/Installing Energy Curtains Sun Select Delta, Delta	Agriculture	Fuel switching	\$11.00	100	\$1,100
Bus Fuel Efficiency Project Translink, Metro Vancouver	Transportation	Energy efficiency & fuel switching	\$13.00	30	\$390
GRAND TOTAL				607,619⁸	\$6,999,999.75

⁸ From the 609,688 offsets required to address 2024 emissions, 2,069 offsets were subtracted to reflect adjustments to prior year reported emissions.