



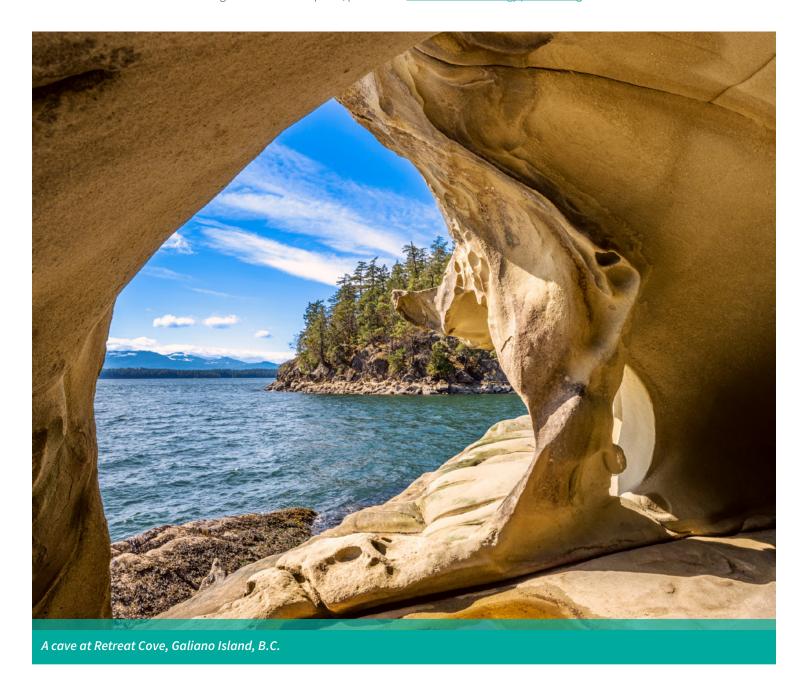


## Land Acknowledgement

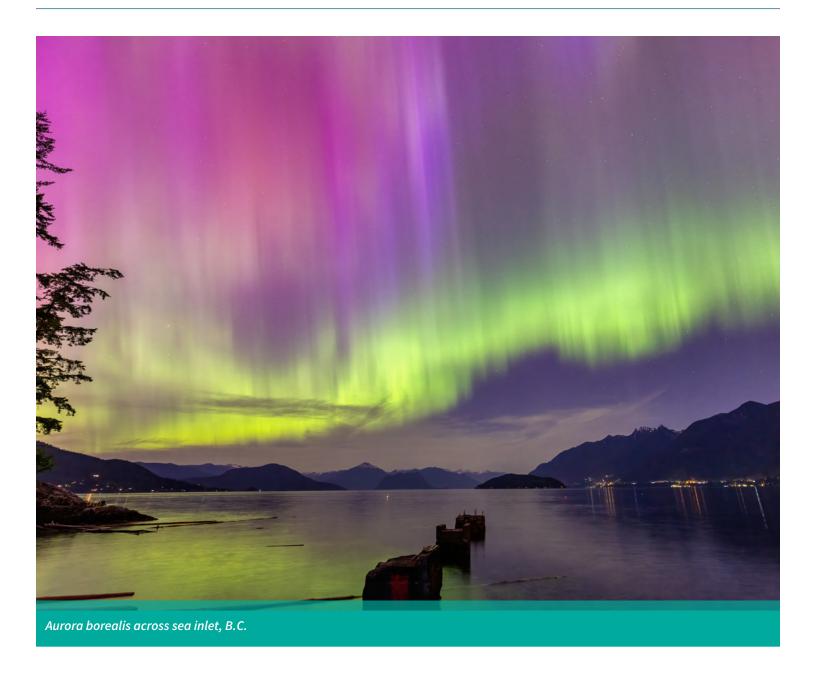
BC Housing gratefully acknowledges that we carry out our work on the unceded, traditional and ancestral homelands of hundreds of Indigenous Peoples and Nations throughout British Columbia, each with their own unique traditions, history and culture. We offer our sincere respect and gratitude to their people past and present and commit to meaningful Reconciliation.

Our Reconciliation Strategy will provide a framework for how the organization operates in a way that demonstrates our commitment to and implementation of *Declaration on the Rights of Indigenous Peoples Act* and the Truth and Reconciliation Calls to Action.

For more information about BC Housing's Reconciliation Update, please visit: Reconciliation Strategy | BC Housing



Cover photo: 96-unit affordable housing in New Westminster for Black and Indigenous communities, built to Energy Step Code 4.



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Western Red Cedar at Eden Grove near the San Juan River, Port Renfrew, Vancouver Island, B.C.

## **Declaration Statement**

This PSO Climate Change Accountability Report for the period January 1, 2024 to December 31, 2024 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2024 to minimize our GHG emissions, and our plans to continue reducing emissions in 2025 and beyond.

By June 30, 2025 BC Housing's final 2024 Climate Change Accountability Report will be posted to our website at <a href="https://www.bchousing.org">www.bchousing.org</a>



## About BC Housing

In 2024, British Columbia experienced a series of severe weather events, including major flooding in October caused by an atmospheric river, which led to widespread flooding and mudslides across Southwestern B.C. Record-breaking summer heatwaves fueled devastating wildfires in western Canada—most notably in Jasper, where approximately 16 percent of the forest area and 30 percent of the town were destroyed. These events not only pose direct threats to infrastructure but also result in unforeseen costs and risks for BC Housing's tenants, clients, partners, and employees.

BC Housing's mission is to "Provide access to safe, quality, accessible, and affordable housing options." We oversee the development, management, and administration of a broad range of subsidized housing programs across the province. These include emergency shelters, rent assistance in the private market, and affordable homeownership initiatives. Currently, we partner with approximately 800 housing providers to support more than 121,000 households in communities throughout British Columbia.

In light of recent climate-related challenges, BC Housing remains committed to reducing carbon emissions. In 2024, sustainability became a key commitment of BC Housing's corporate strategy, ensuring it is embedded across all areas of our work. We strengthened sustainability and resilience requirements for public housing calls, including the Community Housing Fund (CHF) and Indigenous Housing Fund (IHF). A total of 42 energy audits and electrical load assessments were completed on major retrofit projects.

Our ongoing implementation of the Extreme Heat and Wildfire Smoke Response Action Plan continues to enhance preparedness and reduce risks for residents. We also maintained our leadership in delivering research and educational initiatives that support a low-carbon, climate-resilient transition in the residential construction sector.

As the impacts of climate change grow, BC Housing remains steadfast in our vision that "everyone has a place to call home." Guided by our core values — forward-thinking, client-focused, empowerment, and responsibility — we are working to safeguard communities today while preparing for the challenges of tomorrow.

# 2024 Greenhouse Gas Emissions and Offsets Overview

### Emissions and Offset Summary Table:

BC HOUSING 2024 GHG EMISSIONS AND OFFSETS					
GHG Emissions created in Calendar Year 2024					
Total Emissions (tCO <sub>2</sub> e)	32,519				
Total BioCO <sub>2</sub>	0				
Total Offsets (tCO <sub>2</sub> e)	32,519				
Adjustments to Offset Required GHG Emissions Reported in Prior Years					
Total Offsets Adjustment (tCO <sub>2</sub> e)	-645				
Grand Total Offsets for the 2023 Reporting Year					
Grand Total Offsets (tCO <sub>2</sub> e) to be Retired for 2024 Reporting Year	31,874				
Offset Investment (\$25 per tCO <sub>2</sub> e)	\$796,850				

## Total Emissions for Offsets for the 2024 Reporting Year

BC Housing purchased carbon offsets from the Government of B.C. for the equivalent of 31,874 tonnes of  ${\rm CO_2}e$  to obtain carbon neutral status for 2024.

Zero tonnes of  ${\rm CO_2}{\rm e}$  emissions from the combustion of biomass and biomass-based fuels were reported as part of our greenhouse gas emissions profile in 2024. While  ${\rm CO_2}{\rm e}$  emissions from these sources must be reported, they do not require offsets.

### Retirement of Offsets

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, BC Housing (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2024 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (the Ministry) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

Peter Goldthorpe

VP, Strategy and Innovation

BC Housing May 30, 2025



## Emission Reductions: Actions & Plans

### **Stationary Sources**

BC Housing reports on energy use and related greenhouse gas emissions from all the buildings that we own or lease as required by the Carbon Neutral Government Regulation. With the exception of our offices, our building inventory is made up of various types of affordable housing, including:

- Residential towers (high-rise buildings)
- Low- and mid-rise buildings
- Supportive housing buildings
- Single-room-occupancy hotels (SROs)
- Townhouses
- Group homes

Some of these buildings are managed directly by BC Housing, while others are operated by non-profit housing providers.

In 2024, our portfolio included 882 affordable housing sites owned or leased by BC Housing, totaling over 18 million square feet of floor area. During the year, we added 47 new sites to our greenhouse gas reporting inventory through new construction or purchase of existing buildings.

## Greenhouse Gas Results for Buildings

Our Service Plan sets a target of a 25-30 percent reduction in greenhouse gas emissions from buildings for 2024, compared to a 2010 baseline. This target is also included in our <u>Sustainability and Resilience Strategy</u>, which also includes a target of a 50 percent reduction in building emissions by 2030, in alignment with CleanBC. As the largest developer in B.C. providing community housing, BC Housing has increased our stock of buildings significantly over the years. This increase makes meeting our GHG reduction targets more challenging. We are currently reviewing what is required to achieve the CleanBC target of 50 percent GHG emissions reduction by 2030.

In 2024, our greenhouse gas emissions related to energy used to provide heat, water and electricity for our buildings totaled 32,189 tonnes of  ${\rm CO_2}$  equivalent. Since 2010, we have decreased emissions from our buildings by 22 percent. There has been a 0.9 percent decrease in emissions compared to 2023.  $^{\rm 1}$ 

<sup>1</sup> As of the 2019 reporting year, BC Housing has changed from a 2005 baseline to a 2010 baseline to align with CleanBC's emission reduction targets. For the comparison of last year results and 2010, the baseline was recalculated as per the greenhouse gas protocols.

## 2024 Buildings GHG Emissions

### Compared with 2010 baseline and 2023 results

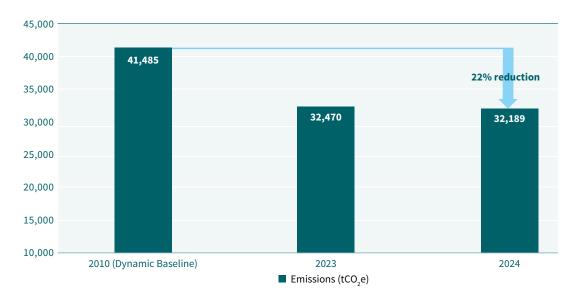
EMISSION SOURCE	<b>2024 GHG EMISSIONS</b>	2024 RESULTS COMPARED WITH	2024 RESULTS COMPARED
	(Tonnes of CO <sub>2</sub> e)	THE 2010 BASELINE	WITH 2023
Buildings (Stationary combustion)	32,189	22% decrease	0.9% decrease

Our greenhouse gas emissions in 2024 were 22 percent lower than our 2010 baseline, meaning we did not meet the 25-30 percent target outlined in our Service Plan and Sustainability and Resilience Strategy.

In 2024, we saw a minimal decrease in emissions compared to 2023, demonstrating our ongoing efforts to reduce GHG emissions over the years.

The addition of housing units affects our greenhouse gas emissions in the following ways:

#### BC HOUSING BUILDING GHG EMISSIONS OF BASELINE, PREVIOUS YEAR AND CURRENT YEAR



- New buildings built to high energy efficiency standards and that are fully electric, have low greenhouse gas emissions and will only increase our emissions slightly. New buildings that are not energy efficient and/or use natural gas have significant emissions and will have a greater impact. In 2024, new construction contributed approximately 1.6 percent of our overall emissions.
- Existing buildings that are acquired by BC Housing also contribute to our greenhouse gas emissions. If a building that we acquire was in existence before the baseline year, its emissions from that year are added to our baseline and will not significantly impact our ability to meet our greenhouse gas reduction targets. However, the acquisition of

inefficient buildings built after 2010 will increase our current emissions compared to our baseline and make greenhouse gas reductions harder to achieve. In 2024, the acquisition of existing buildings contributed approximately 1.9 percent of BC Housing's total emissions.

While these percentages appear small, over the past eight years, the addition of new construction and acquisition of existing buildings, which now account for approximately 30% of total emission cumulatively, has added significantly to BC Housing greenhouse gas emissions.

In addition, more extreme weather patterns have been observed, with increased Heating Degree Days and Cooling Degree Days in some parts of B.C., contributing to higher energy consumption and subsequent GHG emissions.

Greenhouse gas emissions and reduction opportunities vary across our building portfolio, depending on the building type and operational model. BC Housing's Directly Managed buildings contribute almost 33 percent of our total greenhouse gas emissions. Due to major upgrades to theses buildings and only small changes in this inventory since 2010, we have reduced emissions in this portfolio by 26 percent. Another area where we saw significant reductions was within the SRO building type, where emissions were reduced by 38 percent in 2024, compared to 2010.

For the 2024 reporting year, our data estimation rate has increased by about 3 percent compared to 2023. FortisBC natural gas consumption data (accounting for approximately 34 percent) was estimated for private accounts for all or varying portion of individual buildings. We are estimating consumption of these accounts based on similar building types to ensure consistency year-to-year<sup>2</sup>. This is a significant issue which has limited our ability to conduct accurate data analysis and checks that would result in a high level of confidence in this data.

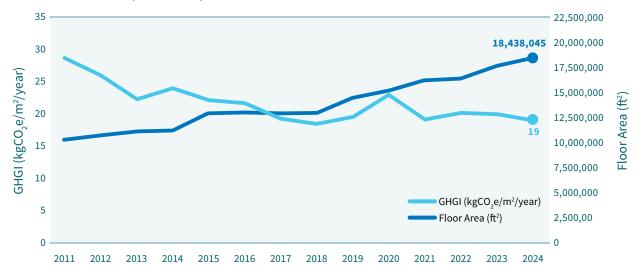


### Floor Area Comparison

Our emissions have decreased relative to our floor area since 2010. However, our portfolio has increased by 438 buildings since 2018. This has resulted in increasing greenhouse gas emissions over the past five years.

The graph below shows the GHG emissions intensity (GHGI) and floor area changes from 2011 to 2024. GHGI is calculated by dividing GHG emissions by floor area.

### FLOOR AREA AND GHGI CHANGE (2011 - 2024)



We have continually reduced GHGI throughout the years due to energy conservation and electrification efforts in our existing portfolio. These efforts (described in more details in the next section of this report) include:

Further efforts have been made to increase energy efficiency standards for new construction. These initiatives are also described in the following section of this report.

- multi-year building upgrades
- fuel switching
- energy programs

<sup>2</sup> Note that the 2010 baseline was estimated because historical data is inaccessible without individual consent, due to Fortis BC's privacy policy.

### Actions Taken in 2024

In 2024, BC Housing worked with our partners, staff, and tenants to ensure lasting energy performance in our existing building stock, as well as in our new housing developments. .

We undertook initiatives related to buildings in the following areas:

- Energy conservation initiatives for existing affordable housing buildings
- Energy conservation training and education in the social housing sector
- ▶ Low carbon, energy efficiency in new affordable housing construction
- ▶ Technical research and education in the residential construction sector
- ▶ Asset management capacity building for Indigenous communities

## ENERGY CONSERVATION INITIATIVES FOR EXISTING AFFORDABLE HOUSING BUILDINGS

- BC Housing administers or supports a range of energy efficiency programs for social housing providers, in collaboration with our partners. In 2024, these programs included
  - The Energy Efficiency Retrofit Program (EERP), along with our partners the BC Non-Profit Housing Association (BCNHPA), BC Hydro, and FortisBC. This program enabled eleven electric energy retrofit projects, for a total estimated savings of 643,783 kWh in 2024, nearly double what we had in 2023. The program offers non-profit housing providers additional funding to complete small-scale, energy-saving retrofits of items such as lighting and boilers, with a focus on electrification to align with provincial GHG reduction targets.
  - The Columbia Basin Trust (CBT) Energy Retrofit Program (ERP),
     Affordable Housing Renewal Energy Program (AHREP), and
     Recharge Program are delivered by the BC Non-Profit Housing
     Association in partnership with BC Housing. These programs
     provide grants for non-profit organizations that operate
     affordable housing in the Columbia Basin region. The grants
     provide support for:
    - heating
    - · ventilation, and air conditioning systems
    - building envelope upgrades such as windows and insulation
    - hot water heaters
    - · lighting
    - · solar energy generation arrays;

Currently 54 sites and 1000 units are at different stages of the CBT programs (ERP, AHREP, Recharge). The 2025 applications for the program are currently in the review phase.

- In 2024, BC Housing completed 42 energy audits and electrical load assessments on all major retrofit projects. These assessments identified current energy consumption patterns and opportunities for energy and GHG emission reductions. Funding for the audits and repairs came from the Capital Renewal Fund.
- Several significant energy retrofits were completed at BC Housing and non-profit partner sites in 2024. These retrofits are expected to result in substantial energy and GHG emission savings. Notably, Tamarack Close achieved more than an 80 percent reduction in annual GHG emissions. Several additional projects were initiated in 2024 and are currently in various phases of design and construction.

## ENERGY CONSERVATION TRAINING AND EDUCATION IN THE SOCIAL HOUSING SECTOR

BC Housing continues to make significant strides in climate mitigation and reducing greenhouse gas (GHG) emissions. Recent initiatives include:

- In 2024, BC Housing's Energy and Sustainability team developed and provided training on retrofit energy modelling for industry professionals to promote best practices. These sessions aim to enhance renovation designs, ensuring they are energy-efficient and sustainable.
- Efforts to raise energy literacy across all departments within BC Housing are ongoing. This initiative fosters a culture of energy conservation within the organization, empowering staff with the knowledge and skills to implement energy-saving measures. The expertise of the Energy and Sustainability team informed the development of new housing. The team also supported retrofitting existing units to high energy efficiency standards
- ▶ In 2024, BC Housing continued to support the BC Non-Profit Housing Association in the delivery of their Operations and Maintenance program. This program builds energy management capacity in the housing sector, enhances energy and greenhouse gas savings, and tenant buy-in and engagement.

Courses offered through the Operations and Maintenance program include:

- Asset Management Foundations
- Building Systems
- New Construction and Redevelopment
- Green Asset Management etc.

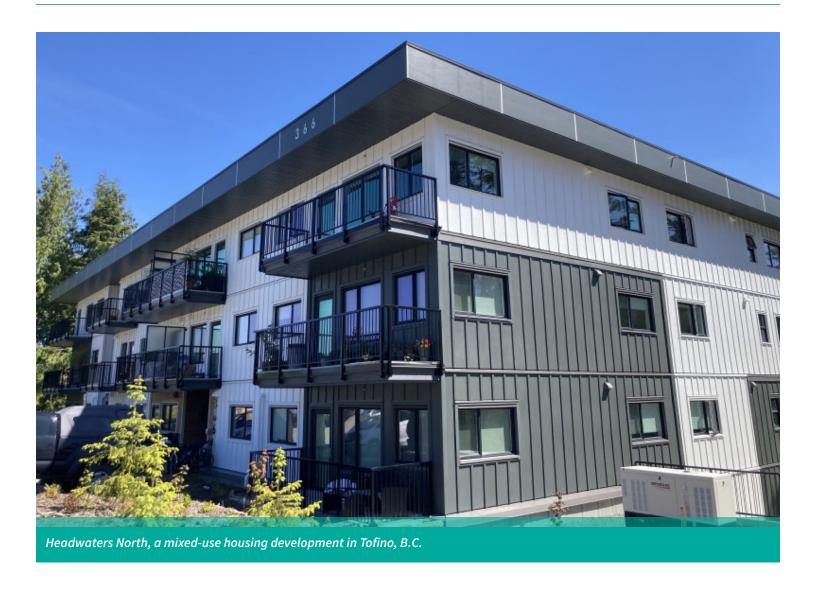
#### **ENERGY EFFICIENCY IN NEW AFFORDABLE HOUSING CONSTRUCTION**

- ▶ BC Housing Development and Asset Strategies branch is committed to advancing sustainability initiatives through collaboration with our project partners to achieve low carbon, energy efficient standards in the development of new affordable housing.
  - In 2024, we completed 48 projects that have achieved Step 3 or higher of the BC Energy Step Code. Since the inception of BC Energy Step Code in 2017, our projects have consistently targeted higher steps of this code, a performance-based approach that will result in energy savings over base building code in new buildings constructed through our programs.
  - Among these projects, 22 are fully electrified, boasting a
    greenhouse gas intensity (GHGI) under 1.8 kg/m²—equivalent
    to EL-4 of the Zero Carbon Step Code. An additional 3 projects
    are classified as low carbon, with emissions under 3.0 kg/m²,
    demonstrating our commitment to reducing our carbon
    footprint.

- In 2023/24, BC Housing strengthened the sustainability and resilience requirements for public housing calls, including the Community Housing Fund (CHF) and Indigenous Housing Fund (IHF). The third proposal call for CHF announced 43 new projects, with all but three being fully electrified to robustly support climate mitigation initiatives.
- Proposed updates to the Design Guideline and Construction
   Standards further align BC Housing's practice with the Provincial
   Zero Carbon Step Code and address the gaps in meeting our 2030
   greenhouse gas reduction targets. Key changes include lowering
   the Greenhouse Gas Intensity (GHGI) limit to encourage the
   adoption of low-carbon, electrified building systems, and requiring
   early-stage due diligence measures, such as Electrical Load
   Analysis, to ensure that sites have the necessary infrastructure
   capacity to support the cost effective design and construction of
   high-performance buildings.



Cornerstone new construction project in Nanaimo, B.C. — built to Step Code 4 with a low Greenhouse Gas Intensity (GHGI)



### ASSET MANAGEMENT CAPACITY BUILDING FOR INDIGENOUS COMMUNITIES

- ▶ In 2024, BC Housing's Indigenous Asset Management team worked with Indigenous communities across the province to build capacity in Asset Management. Activities included:
  - The continued implementation of five Asset Management Memorandum of Understandings (MOUs) with 22 First Nations across B.C.
  - Holding monthly Lunch and Learns with Indigenous partners which included sessions on: Accessibility and Housing, Commissioning, Prepping your Fall Woodpile, and Indigenous Housing.
  - Assisting in Building Condition Assessments of homes with First Nations which included training delivered by the Indigenous Asset Management team.

- Connecting BC Housing Project Technologists, Construction
   Project Managers, and senior leadership representatives to each
   MOU community to complete Building Condition Assessments.
- Introducing the Tendering and Contract Management online workshop.
- Delivering the Identifying Home Maintenance Needs online training.
- Providing QA/QC for third-party Building Condition Assessments (BCA) of MOU communities.

#### TECHNICAL RESEARCH AND EDUCATION IN THE RESIDENTIAL CONSTRUCTION SECTOR

Under the Homeowner Protection Act, BC Housing is mandated to improve the quality of residential construction in B.C. through industry research and education. In 2024, we undertook the following initiatives which contributed to improved quality of residential construction and better building energy efficiency:

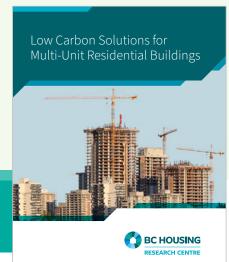
- BC Housing is educating the residential construction sector through our <u>Learning On Demand</u> online platform. In 2024, BC Housing, in collaboration with our partners, developed a series of educational videos covering topics such as Fire Regulatory Considerations for Low-Rise Residential Buildings, Key Considerations for High-Performance Walls, and Mitigating Thermal Bridges.
  - Many of the videos fall under the Building Smart seminar series, which provides up-to-date building code information and best practices for the construction and design of homes in B.C. These practical and informative sessions give licensed residential builders, contractors, building officials, architects, engineers, trades, and others involved in the home building industry access to the latest research and technology.
- ▶ BC Housing completed a toolkit for local governments by identifying the barriers and enablers of <u>Realizing Resilient Building (R2B)</u>. The whole R2B process involved reviewing and summarizing existing research and analysis on the subject, and engaging multiple knowledge holders across the buildings landscape in the province.
  - This <u>toolkit</u> is designed to provide B.C. regional and municipal governments (local governments) an introduction to strategies and tools that can be used to support more climate- and seismic-resilient buildings in B.C. communities.
- BC Housing conducts technical research and provides education to help improve the quality of residential construction and increase building energy efficiency. In 2024, we released around 20 publications in collaboration with our partners.

More reports are available online from <u>BC Housing's Research Centre</u>.

### **Examples of the Technical Research Publications**

- Flood Resilience for New and Existing Buildings The video series offers solutions for a variety of development types at risk of flooding, including single-family residences, multi-family/strata, and provides guidance about new developments.
- Building Innovation: Does High Performance Construction Cost More? - This bulletin shares BC Housing's lessons learned as it moves towards requiring low carbon, energy efficient, and more resilient affordable housing in B.C.
- ► The Homeowner's Guide to Electrical Load

  Management This guide covers key concepts and
  approaches to home electrical load management in fuller
  detail.
- Design Guide for Domestic Hot Water Heat Pumps in New Multi-Unit Residential Buildings - Reducing GHG emissions and hitting zero-carbon targets will require a new approach to domestic hot water systems. This guide provides industry professionals with the information needed to approach designing with DHW heat pump systems in mind while building towards these targets.
- Low Carbon Solutions for Multi-Unit Residential Buildings - This study identifies ways to reduce embodied carbon in new construction and in building renovation projects.



This document about low carbon solutions was published on BC Housing's <u>research center library</u>

### MOBILIZING BUILDING ADAPTATION AND RESILIENCE (MBAR)

Mobilizing Building Adaptation and Resilience (MBAR) is a multi-year, multistakeholder knowledge and capacity building project led by BC Housing. Over 30 organizations participate and



contribute, including national, provincial, and local agencies, and industry partners. In 2024, among other activities, BC Housing worked with MBAR staff on several BC Housing MBAR Roundtable events, including the following topics:

- ▶ Managed Retreat: Strategies & Equitable Approaches
- Effective Knowledge Mobilization: From Blueprints to Breakthroughs
- Making Innovations Happen: Reaching for the Tipping Point
- Changing Pest Dynamics & Biodiversity

In 2024, more than 300 participants attended MBAR roundtable sessions. In addition to the roundtable events, we initiated four Deeper Dive circles to provide space and opportunity for further engagement.

As part of the ongoing MBAR initiative, we undertook projects in 2024

to continue exploring innovative sustainability and resilience measures. These projects aim to integrate cutting-edge approaches for energy efficiency, climate adaptation, and social equity into new construction and renovation efforts. Our 2024 MBAR projects include:

**Total Cost of Ownership (TCO):** The 2024 TCO analysis evaluates the costs and benefits of various energy conservation measures (ECMs) for both new construction and renovation projects focused on electrification.

This study includes strategies that are often overlooked due to high upfront costs but have the potential to deliver significant energy savings over the building's lifetime. Some of these strategies are essential for achieving ultra-low energy consumption, while also enhancing grid resilience and promoting energy justice.

**Climate Risk Assessment (CRA):** This pilot project involved five new construction projects that underwent a climate risk assessment using an internally developed tool. The tool not only assists project teams in identifying potential climate risks but also helps them explore possible adaptation strategies that can be integrated early in the project's development

**Living Future Core Certification:** A BC Housing project is part of a cohort pilot program with Living Future, focused on affordable housing projects pursuing Core Certification. This certification is one of the most stringent in terms of energy, water, biodiversity, and other sustainability standards. To date, the project has benefited from incorporating strategies such as energy conservation, water management, landscape regeneration, and a strong emphasis on equity and belonging.

**Vienna House Project in East Vancouver:** Vienna House is a partnership between BC Housing and the City of Vancouver to build an innovative, near zero-emissions rental apartment community in East Vancouver. In 2024, progress on Vienna House included:

- the development of a cutting-edge zero-carbon hot water plant;
- the use of prefabricated and offsite construction methods to achieve very high levels of energy efficiency;
- the use of innovative prefab balconies.

More insight reports are available online from <u>BC Housing's Research</u> <u>Centre</u>.



An engineer works on the electrical and control panel for one of three Vienna House Droplet hot water plants. (Source: Viennahouse.ca)

## Success Story

## TAMARACK CLOSE REMEDIATION PROJECT

Tamarack Close, a Pacifica Housing—owned and operated social housing site in Colwood on Vancouver Island, underwent a significant and successful renovation process in 2024. The property comprises 28 units, including two-and three-bedroom townhomes and apartments, with four modified units designed for accessibility.

The project significantly enhanced the quality of life for its tenants. This transformative effort addressed a wide array of issues including:

- Replacement of 54 natural gas furnaces with electric ducted air source heat pumps
- Replacement of 54 natural gas domestic hot water tanks with hybrid water heaters
- Electrical system upgrades to support full fuel switching
- Installation of energy recovery ventilation (ERV) systems

The redevelopment emphasized environmental sustainability, resulting in an impressive 93 percent reduction in overall GHG emissions—equivalent to 104 tons of CO<sub>2</sub>e.



The view of Tamarack Close from the bottom of the street



Heat pumps installed at Tamarack Close

## Mobile Sources

In 2024, our vehicle fleet consisted of 74 vehicles, primarily trucks and vans used by grounds and building maintenance staff. Fuel-efficient vehicles (electric, hybrid, or Smart Cars) made up 9 percent of our fleet. Notably, we purchased our first electric truck for the daily usage of our People, Plants and Homes program (PPH) staff.

We maintain a corporate account with Modo, a carsharing cooperative, for staff use in the Vancouver Coastal and Fraser regions. This account provides staff access to a wider range of vehicles and flexibility in vehicle locations. Since 2016, emissions from staff trips in Modo vehicles have been calculated and reported alongside BC Housing's own fleet. In 2024, our staff drove 6,873 kilometers using Modo vehicles, and 25 percent of that distance was covered in hybrid and electric vehicles.

In 2024, our greenhouse gas emissions from mobile sources (BC Housing owned fleet vehicles, Modo vehicles, and grounds equipment) totaled 297 tonnes. Greenhouse gas emissions increased by 63 percent compared to our 2010 baseline and by 16 percent compared to 2023.

Our grounds equipment includes, but is not limited to lawn mowers, leaf blowers, and mobile generators. Our grounds equipment fuel consumption has been relatively consistent over the past five years. Grounds staff are exploring using electric mowers and hand tools, which will help us reduce emissions from equipment in future years.

Modo and Ground Equipment)



EMISSION SOURCE

2024 GHG EMISSIONS
(Tonnes of CO<sub>2</sub>e)

2024 RESULTS COMPARED
WITH THE 2010 BASELINE<sup>3</sup>

Pleet Only

278

56% increase

19% increase

All Mobile Combustion (Fleet,

63% increase

16% increase

297

<sup>3</sup> Note that the 2010 baseline mobile emissions do not include emissions from Modo vehicles, since BC Housing did not have a Modo account back then.

### 2024 Fleet Emissions

CleanBC sets a target of a 40 percent reduction in greenhouse gas emissions from government fleets by 2030. This target is also included in our Sustainability and Resilience Strategy.

When compared to our 2010 baseline, emissions from our fleet have increased as our organization has grown. Our fleet itself has grown, from 43 vehicles in 2010, to 74 vehicles in 2024 (a 72 percent increase).

### BC HOUSING FLEET TOTAL EMISSION & KM TRAVELLED, 2010-2024



In 2024, the kilometres travelled by the BC Housing-owned fleet decreased by 2 percent compared to 2023. However, emissions increased by 19 percent, indicating the use of older, less energy-efficient vehicles for more mileage. To address this, BC Housing recently completed two studies to guide our next steps in greening our fleet: a third-party "Green Fleet Review" and an "EV Ready Fleet Plan" for our Greater Vancouver vehicles.

For the 2024 reporting year, we calculated greenhouse gas emissions using both vehicle mileage and reported fuel consumption data. Recognizing the importance of accurate data, we emphasize the need for proper fuel data recording in our systems.

### Actions Taken in 2024

- ▶ Green Fleet Review: This review outlined strategies to meet our GHG reduction targets. Recommendations included eco-driver training, centralized fleet management, and exploring alternative fuels and electrification.
- ► EV Ready Fleet Plan: This plan examined our Greater Vancouver maintenance and grounds vehicles, providing a detailed pathway for fleet replacement and suggestions for charging infrastructure.
- We purchased one fully electric truck for the daily use of our People, Plants, and Homes program. This pilot has provided valuable lessons in terms of operational requirements, driver behaviors, and the cost to power the vehicle.
- We also installed three charging stations at the səmiqwə?elə (Riverview) site to prepare for the addition of EVs to our fleet.

## Paper

Our Sustainability and Resilience Strategy targeted a 70 percent reduction in greenhouse gas emissions from paper compared with the 2010 baseline. In 2024, our greenhouse gas emissions from office paper totaled 14.1 tonnes of CO<sub>2</sub>e.

Since 2010, our annual greenhouse gas emissions from paper consumption have decreased by 53 percent. Despite this significant reduction, we did not meet our target of a 70 percent decrease. Efforts to digitize our processes and changes to our procurement practices have been made. In 2024, the organization purchased 8 percent more paper by weight than in 2023, leading to a 16 percent increase in greenhouse gas emissions.

The number of our employees continued to increase last year, reaching approximately 1,300 by the end of 2024. Our GHG emissions per employee associated with paper use declined by 78 percent since 2010, a more significant decrease than the absolute result.



### 2024 Paper GHG Emissions

PAPER	2024 GHG EMISSIONS (TONNES OF CO <sub>2</sub> e)	2024 RESULTS COMPARED WITH THE 2010 BASELINE	2024 RESULTS COMPARED WITH 2023	2024 RESULTS COMPARED WITH THE 2010 BASELINE, PER EMPLOYEE
	14.1	53% decrease	16% increase	78% decrease

In 2024, only 32 percent of the total paper purchased consisted of 100 percent recycled paper, representing a 25 percent decrease from 2023. Recognizing the importance of embedding and standardizing the paper procurement process in our procurement strategy, we are committed to establishing a Paper Procurement Policy.



### Actions Taken in 2024

▶ Human Resources Branch: The HR Branch has been transitioning operations into digital formats, shifting BC Housing away from traditional paper-based procedures to automated, digitized, and application-based processes.

## Plans to Continue Reducing Greenhouse Gas Emissions in 2025



## Energy Conservation Initiatives in the Social Housing Sector

- The British Columbia government has invested \$1.1 billion over eight years to make B.C.'s social housing stock more energy efficient, less polluting and safer. Investments also aim to significantly reduce heating and cooling costs for residents. Of this Capital Renewal Fund, \$10 Million annually has been dedicated to the incremental cost of energy savings measures on our own and our non-profit partner's projects. Other retrofits include fuel switching, building envelope upgrades, and other energy efficiency measures.
- We will continue to work on the climate mitigation projects from\$36M of secured funding from CMHC's National Housing Co-Investment Fund to repair provincially owned affordable housing units. This funding, in combination with the Capital Renewal Funding, will support Energy/GHG reduction measures in 3,600 units. These units are expected to achieve 45 percent GHG reduction and 25 percent energy reduction by end of 2026.
- In 2025, the Energy Efficiency Retrofit Program (EERP) will continue to address the energy efficiency of social housing through smaller scale projects such as lighting and heat pumps.

### Zero Carbon and Energy Efficiency Initiatives in the Social Housing Sector

- ▶ In 2025, BC Housing will release an updated version of its Design Guidelines & Construction Standards. The updated version features enhanced language supporting carbon reduction efforts. These updates will include lowered targets for Greenhouse Gas Intensity (GHGI) in new construction and alignment with the Zero Carbon Step Code, alongside the introduction of Embodied Carbon Reporting.
- ▶ BC Housing has the following performance measure related to green buildings in our Sustainability and Resilience Strategy:

  Percentage of new provincially sponsored homes⁴ that meet the climate change mitigation and resilience requirements⁵ outlined in the BC Housing Design Guideline and Construction Standard. We have set a 55% target for 2024/25 and will report the progress in our Sustainability and Resilience Report later in the year. This furthers the commitment to sustainable building practices and reducing carbon emissions in new construction projects.
- ▶ BC Housing remains dedicated to fostering awareness and understanding of sustainable practices by continuing to offer educational resources to consultants and municipalities. Through these initiatives, we aim to empower stakeholders with the knowledge needed to integrate environmentally responsible approaches into their projects and policies. This will contribute to a collective effort in combatting climate change.

<sup>4</sup> For the purposes of this measure, provincially sponsored homes mean all units majority funded or financed by BC Housing.

For the purposes of this measure, these climate change mitigation and resilience requirements include achieving the correct level of the BC Energy Step Code, meeting the GHG intensity target, and meeting the overheating hours target. While there was a target included in our Sustainability and Resilience Strategy, this target is under review.

### The Residential Construction Sector

- BC Housing will continue to provide residential construction industry education by developing and delivering at least 10 Building Smart workshops, seminars, and webinars across B.C. Topics will include information on intermediate steps of the BC Energy Step Code, and innovative and best construction practices to comply with these requirements.
- We will continue to take action to facilitate the implementation of the BC Energy Step Code, including:
  - Performance monitoring of high-performance social housing buildings meeting high levels of the BC Energy Step Code.
  - Engaging with the design teams early on to establish sustainability target and conduct peer review process to ensure efficient building design
  - Developing other educational materials. This includes a series
    of customized seminars and webinars, videos, animation, online
    interactive guidance tools, and tool kits for hands-on training. The
    materials will be useful and accessible to builders and designers in
    both urban and remote regions of B.C.
  - Administering a local government survey to gauge the barriers and successes in adoption of the BC Energy Step Code.
- In partnership with our research partners, BC Housing will publish additional reports designed to assist the residential construction sector meet market demand and transition to sustainable and resilient design.
- We will update our Owner Builder Authorization exam to include questions that address BC Energy Step Code requirements. The exam tests home-building basics, including statutory obligations and requirements under the Homeowner Protection Act. In addition, our Licensing and Consumer Services department will work with partners to update general contractor qualification course materials to address new BC Energy Step Code requirements.



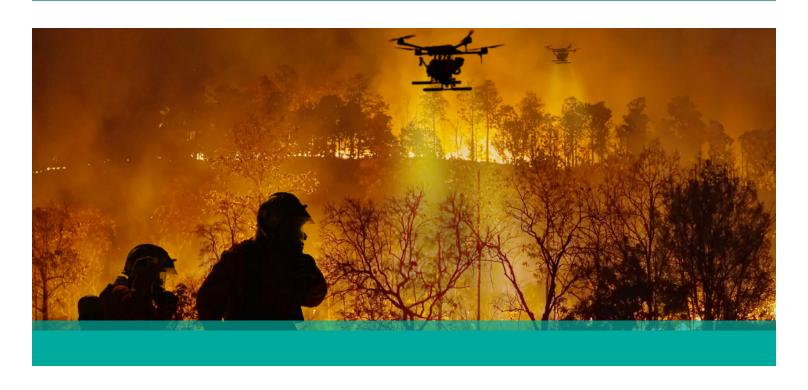
### Fleet

- With the Green Fleet Review and EV Ready Fleet Plan completed, BC Housing plans to develop and implement a multi-year Green Fleet Strategy. This will include changes to our fleet and fleet management to help us move towards our target. We will explore options including improving our fleet management software, centralizing fleet monitoring, electrifying appropriate vehicles, and building out our charging infrastructure.
- ▶ We plan to enhance eco-driver training programs to promote sustainable driving practices among our staff, contributing to our overall GHG reduction targets. Additionally, we will explore alternative fuels and electrification options for vehicles that are not yet suitable for full electrification.

### Paper

▶ BC Housing is committed to increasing the proportion of paper sourced with 100 percent recycled content. In 2025, we aim to meet our target of a 70 percent reduction in emissions by implementing measures to ensure that paper procurement aligns with our sustainability goals. This includes developing the procurement policy and enhancing communication with regional staff responsible for purchasing paper to prevent procurement of paper with lower recycled content.





## Climate Risk Management

In 2024, B.C. faced several significant climate events, from record breaking heat waves in summer 2024, to intense wildfires and heavy rain and flooding, disrupting communities and infrastructure and leading to widespread evacuations and significant property damage.

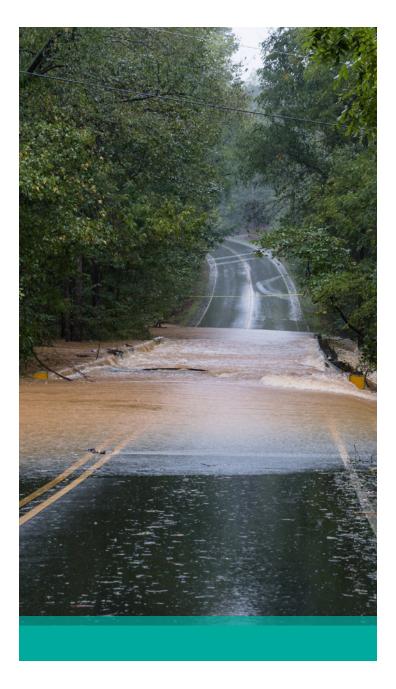
Many people are affected by these events. Those with limited resources, those with disabilities and equity seeking groups, and those living in rural and remote communities are impacted the most.

BC Housing has taken action on climate change in the following ways:

- ▶ Extreme Heat and Wildfire Smoke Response Plan: BC Housing continued to follow priorities and activities outlined in the Extreme Heat and Wildfire Smoke Response Plan. We maintained our collaboration with health authorities, municipalities, and other government agencies, which informed our approach to extreme heat and wildfire smoke preparedness. Key action areas included:
  - Increasing capacity within the non-profit housing providers sector
  - Building organizational capacity within BC Housing
  - Reducing risks to residents associated with extreme heat and poor air quality due to wildfire smoke in new construction and existing buildings
  - · Research and engagement
  - Collaboration with partners, stakeholders and people living in social housing

- Annual Reporting: We have been reporting annually through our Sustainability and Resilience Report on the performance measures and targets outlined in our Sustainability and Resilience Strategy. The report includes actions in each of our key business areas regarding managing climate risks and reducing our contributions to the changing climate.
- Updated Design Guidelines: Our Design Guidelines and Construction Standards has been updated to include climate adaptation and resiliency guidelines, specifically targeting extreme heat and smoke mitigation.
- Low-Carbon, Resilient Building Guides: We researched and published low-carbon, resilient building guides and bulletins for the residential construction industry. This new body of knowledge will be incorporated into training and education for the industry.
- Climate Hazard Assessment Tools: We are developing tools and resources to incorporate climate hazard assessment and risk mitigation strategies into building construction and retrofits.

- Project-Specific Climate Risk Tools: We created tools to help our teams working on building and renovating social housing understand the climate risks for their projects so that they can update their designs accordingly.
- Since 2023, BC Housing has been piloting an initiative to support the development of social connections and community resilience at BC Housing sites. Through staff training, community partnerships and new programming, we aim to boost emergency preparedness among tenants. Tenants also benefit from strengthened relationships between neighbours.



#### PLANS TO CONTINUE THIS WORK IN 2025

- ▶ In 2025, BC Housing will continue to engage with tenants and residents affected by extreme weather and work with the non-profit housing sector on managing extreme heat and poor air quality due to wildfire smoke in affordable housing. We will do this with our partners the BC Non-profit Housing Association (BCNPHA), health authorities, EMCR, local government and communities, and others.
- In 2025, BC Housing will continue to implement the Extreme Heat and Wildfire Smoke Response Plan. This will help reduce the risk for individuals living in social housing and accessing shelters and transition homes, and those who are unsheltered. It will recommend changes for constructing and renovating buildings in a way that takes into account the current and future climate which is already very different than our past climate.
- We will continue to update our Building Standards and Construction Guidelines and commission relevant research, to reflect and address the increasing risks of extreme weather driven by climate change.
- Scaling up the collaborative, multi-year knowledge and capacity building research project: Mobilizing Building Adaptation and Resilience (MBAR).
  - In 2025, we are accelerating the <u>Best Practices in Building</u>.
     <u>Systems (BPiBS)</u> project, transforming it into an innovation program focused on advancing sustainable housing solutions.
     This project, originally a research initiative, now aims to align industry, regulatory, and educational efforts to address Canada's housing needs.
    - We will continue to innovate in building designs, exteriors, water and waste systems, energy and thermal systems, and health and lifestyle systems. Our collaborative efforts with academic, industry, and other partners will ensure the sharing of best practices and the creation of a living roadmap for sustainable housing.
  - We will offer learning opportunities related to barriers and benefits of implementing specific resiliency measures. BC Housing will continue working with the existing and new MBAR pilot projects, academic, industry and other partners, to share the best practices.
- ▶ We will continue development of building climate risk assessment tools & resources for resilient buildings.

## Other Sustainability Initiatives

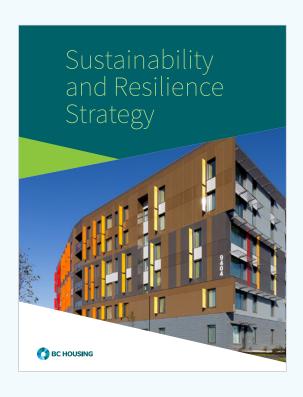
### Strategic Planning

In 2023, BC Housing launched our new Sustainability and Resilience Strategy. In 2024, the Sustainability and Resilience Strategy was a touchpoint for BC Housing on sustainability, guiding our actions on climate action and climate resilience. Sustainability also became a key commitment in BC Housing's corporate strategy, ensuring it will be considered in all facets of our organization.

BC Housing employees learned about the Strategy through our online Sustainability and Resilience 101 training, which introduced staff to the linkages between sustainability, resilience, and our work at BC Housing.

#### PLANS TO CONTINUE THIS WORK IN 2025

- Continue implementation of our Sustainability and Resilience Strategy:
  - This involves actively tracking the performance measures outlined in our Sustainability and Resilience strategy. We will also focus on promoting initiatives and building staff capacity to actively progress the measures and meet the environmental and social targets set in the Strategy.
- ► Update the Sustainability and Resilience Strategy to align with BC Housing's new Strategic Plan
  - As part of our commitment to sustainability and resilience, we are aligning our priorities with the broader strategic direction of BC Housing. This integration ensures that sustainability and resilience considerations are embedded throughout the organization's overarching plans and actions.













The BC Housing Sustainability & Resilience Strategy and the four areas of focus

## **Education and Capacity Building**

### **EMPLOYEE ENGAGEMENT**

Our employee-driven green team, the *livegreen* Council, plays a key role in encouraging sustainable employee behavior both in the workplace and at home. The council has been active for 16 years, planning activities and educational engagements to raise awareness of sustainability issues and opportunities. Council members work according to a strategic plan informed by the findings of our annual sustainability survey.



Our livegreen Council offers sustainability initiatives through news articles, virtual lunch and learns, and in-person campaigns.



livegreen members and employees at False Creek for shoreline cleanup

Below are some examples of our *livegreen* events in 2024:

#### ▶ Shoreline Cleanup at False Creek

BC Housing partnered with the City of Vancouver to offer in-person opportunities for employees in Vancouver. Our 11 dedicated volunteers collected an impressive 16 kilograms of garbage and recyclables.

### Volunteer day at Richmond Sharing Farm

BCH employees volunteered at the Richmond Sharing Farm. The team learned about organic farming and harvested bok choy and potatoes, checking each item for quality and preparing the produce for distribution.

#### Climate Action Campaign

The Council launched a month-long Climate Action Campaign focused on individual actions that each of us can take to minimize personal footprints. Over the course of the campaign, 20 participants joined to take meaningful steps toward reducing their environmental footprints

We also conducted a review through the work of a third-party consultant to better understand the strengths and hurdles of the council's work and improve its effectiveness and positive impact at BC Housing.

Due in part to our employee engagement practices, Canada's Top 100 Employers project has named BC Housing one of Canada's Greenest Employers for ten consecutive years.

#### PLANS TO CONTINUE THIS WORK IN 2025

- The Employee livegreen Council will continue to follow our strategic plan outlined at the beginning of each year by council members, informed by the results of our annual sustainability and resilience survey. The council will focus on top activities in three major sustainability areas:
  - Climate Change Mitigation and Adaptation
  - Pollution Prevention (Waste, Plastics, and Chemicals)
  - Protection of Biodiversity and Appreciation of Nature
- We are also looking at ways to apply a social sustainability lens (EDIB, Truth & Reconciliation, and Accessibility) to all activities, such as offering campaigns with Indigenous knowledge and learning.



Kate Green harvesting bok choy in the field during the volunteer day.

### CORPORATE SUSTAINABILITY AND RESILIENCE EDUCATION

### Micro-credential course offered through Royal Roads University

Since 2022, BC Housing has been connecting interested staff with the "Climate Change Adaptation Fundamentals" micro-credential program offered through Royal Roads University. The program includes two core courses: Climate Change Adaptation Fundamentals, and Indigenous Knowledge and Perspectives of Climate Adaptation.

By the end of 2024, about 50 staff members had taken courses under this program, helping build climate adaptation capacity at BC Housing.

#### **Sustainability and Resilience 101 Training**

The training is an e-learning opportunity offered through our learning platform. The course covers climate change, resilience, and sustainability, and their linkages to our work at BC Housing. By January 2025, about 130 employees had completed the training.

#### **PROCUREMENT**

BC Housing recognizes that every purchase has a social, economic, cultural, and environmental impact.

A significant portion of our public tenders currently include evaluation criteria that focus on sustainable product specifications, waste reduction and diversion, efficiency, and positive contributions to local communities. In 2024, BC Housing drafted a Social and Sustainable Procurement Policy, which will go into effect in 2025.

### **Further Resources**

For information about BC Housing's work on Sustainability and Resilience please visit:

Sustainability & Resilience | BC Housing

Research Centre | BC Housing



