

# 2023 Climate Progress Report



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## Land acknowledgment

Calgary, where the Bow and Elbow rivers meet, was historically a place of confluence where the sharing of resources, ideas and opportunities naturally come together. Long before Settlers named it Calgary, the original Indigenous Nations of this area had their own names for the land. In the Blackfoot language, it is called Moh-kins-tsis. The Îethka Nakoda Wicastabi First Nations refer to this place as Wicispa Oyade and the people of the Tsuut’ina nation call it Guts-ists-l. The Métis call the Calgary area Otos-kwunee.

We would like to take this opportunity to appreciate and acknowledge that we are gathered on the ancestral and traditional territory of the Blackfoot Confederacy, made up of the Siksika, Piikani, Amskaapiikani and Kainai First Nations; the Îethka Nakoda Wicastabi First Nations, comprised of the Chiniki, Bearspaw, and Goodstoney First Nations; and the Tsuut’ina First Nation. Calgary is also homeland to the Otipemisiwak Métis Government, Nose Hill Métis District 5 and Elbow Métis District 6. We acknowledge all Indigenous people who have made Calgary their home.

### LEARNING FROM INDIGENOUS PEOPLES

To align with the recommendations of *Reconciliation and the Intersections of Indigenous Peoples and Climate*<sup>1</sup> and honour the [Truth and Reconciliation Commission](#) and the [White Goose Flying Report calls-to-action](#)<sup>2</sup>, Calgary’s actions to address climate change must reflect:

- Consideration of Indigenous matters of historical and contemporary significance and respect for the oral transmission of language and knowledge.
- Inclusion of Indigenous science, ethical space, philosophies and governance processes when engaging with Indigenous Peoples.
- Inclusion of Indigenous Ways of Knowing, including engaging and building relationships that lead to the development of equitable partnerships.

The City of Calgary (The City) is incorporating the Four Ways (Knowing, Engaging, Relationships, Equity) principles to guide planning and implementation of Calgary’s climate actions, beginning with a commitment to achieve a diverse array of social and economic outcomes for Indigenous Peoples.

<sup>1</sup> Fox, P. and Hatcher, A. 2022. Reconciliation and the Intersections of Indigenous Peoples and Climate. Literature Review. Prepared by Harmony Walkers Inc. Environmental Consultants and Alexandra Hatcher Consulting for The City of Calgary.

<sup>2</sup> Calgary Aboriginal Urban Affairs Committee (CAUAC). 2016. White Goose Flying Report: A Report to Calgary City Council on the Indian Residential School Truth and Reconciliation, Calls to Action. Available online: [white-goose-flying-calls-to-action-report \(1\).pdf](#).



# Executive Summary

*The purpose of the 2023 Climate Progress Report is to provide an update on The City’s first year of executing the 2023-2026 Climate Implementation Plan (Implementation Plan). It shows how this work progresses Calgary’s efforts to decarbonize and adapt to our changing climate over the next 30 years.*

Approved in 2022, the Climate Strategy: Pathways to 2050 (Climate Strategy) is our roadmap to achieving a net-zero and climate-resilient Calgary by 2050. The Climate Strategy provides The City with direction and priorities for corporate and community climate action. The first steps of the Climate Strategy are condensed into the four-year Implementation Plan, in alignment with The City’s 2023-2026 Service Plans and Budgets (Figure 1).

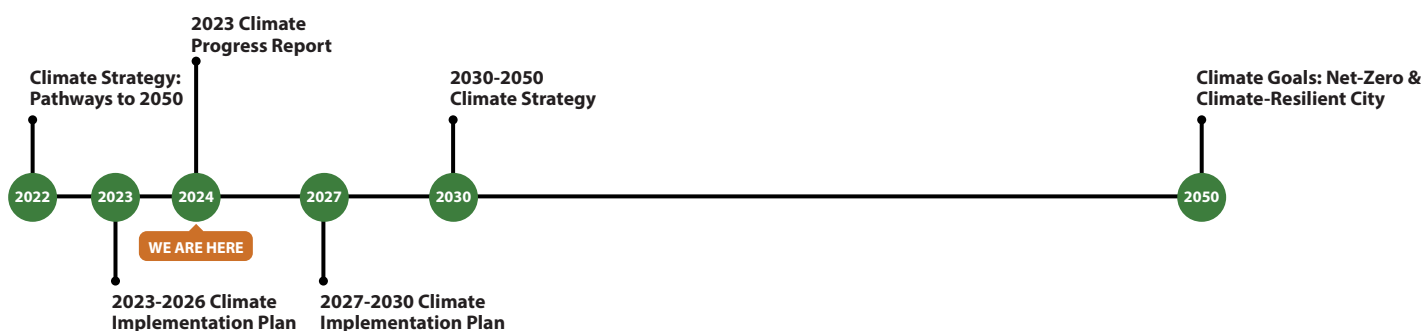


Figure 1. Climate Strategy Roadmap to 2050

**While we are seeing early progress toward our goals, climate action is a long game and ongoing commitment is needed.**

The City has completed the first year of the Implementation Plan with 80% of climate actions underway. This includes:

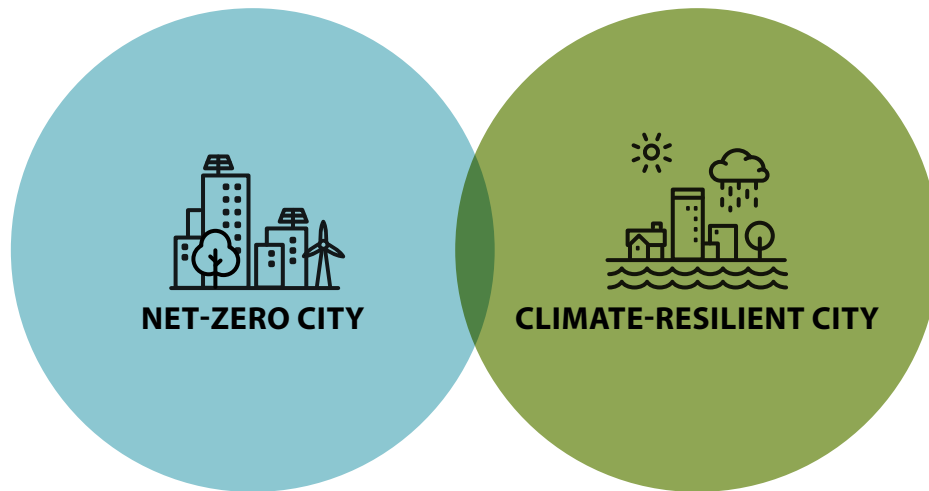
- Over 40 new and expanded climate programs, projects and services were launched in 2023.
- Calgary’s community and corporate greenhouse gas (GHG) emissions are trending down despite a 45 per cent population increase from our 2005 baseline.
  - Overall community GHG emissions decreased by 1.1 per cent from 2005 and 3.9 per cent from 2022.
  - Per capita community GHG emissions decreased 31.9 per cent from 2005 and 6.7 per cent from 2022.
  - Corporate GHG emissions decreased 42.2 per cent from 2005 and 2.9 per cent from 2022.
- The City improved its Tracking Adaptation and Measuring Development (TAMD) score by 23.7 per cent by integrating climate risk and adaptation into its decision making.
- The City secured over \$259 million in grant funding from other orders of government for climate action, with an additional \$37 million pending approval or finalizing agreements<sup>1</sup>.
- The City delivered a new climate reporting framework and a public-facing climate and environment dashboard for Calgarians.
- The City developed over 90 new or strengthened partnerships with industry, businesses and community organizations to enable our programs.

<sup>1</sup> Funding totals as of May 31, 2024.  
ISC: Unrestricted

# Taking action

*We are taking action to progress on our long-term climate goals and targets – turning the curve on community and corporate GHG emissions and improving Calgary’s climate resilience.*

The City completed the first year of the four-year Implementation Plan, with **92 out of an identified 120** climate actions (or almost 80%) currently underway. **These actions are grouped into focus areas that together build the foundation of our climate work and will incrementally move Calgary toward our two long-term goals of achieving a net-zero and climate-resilient city by 2050.**



## CITY DESIGN & DEVELOPMENT

Integrating climate considerations into city planning, urban design and city building.



## BUILDINGS & HOMES

Achieving improved energy performance, carbon reduction and climate resilience of buildings and homes.



## ENERGY

Increasing green and low-carbon energy sources, systems and infrastructure.



## MOBILITY

Supporting active transportation, public transit services, low-carbon vehicles and transportation infrastructure to reduce GHG emissions.



## WASTE

Reducing GHG emissions through waste reduction and diversion, responsible consumption and supporting the circular economy.



## WATER

Protecting watersheds and water supplies while reducing flood and drought risk.



## NATURE & ECOLOGY

Protecting, connecting and enhancing ecosystems, biodiversity, natural infrastructure and green space.



## PEOPLE

Improving equity, access to information, education and the health and well-being of Calgarians to support climate action and resilience.



## CORPORATE GOVERNANCE

Supporting the implementation of The City’s climate strategies, plans and policies and maintaining collective accountability and reporting.

# Climate goal: a net-zero city

*The City is working with Calgarians to reduce Calgary's contributions to global GHG emissions.*

The City reports on two main sources of GHG emissions: community emissions and corporate emissions. Community emissions are broad and include those produced by the community at large: Calgarians, businesses, organizations and The City. Corporate emissions are those produced only by The City of Calgary operations and infrastructure.

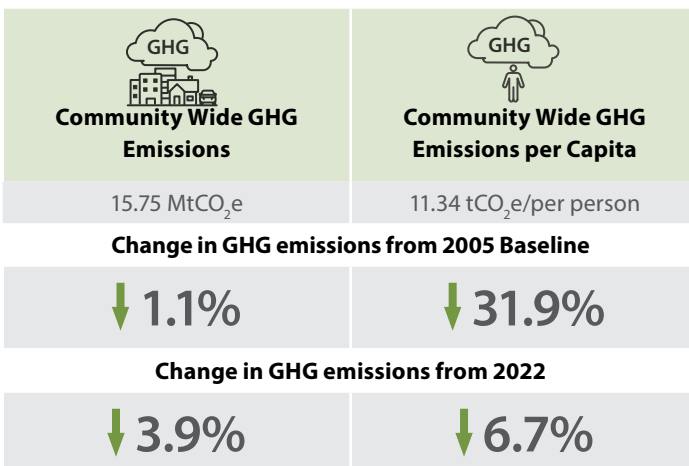
## COMMUNITY-WIDE GHG EMISSIONS

The Climate Strategy identified a goal to reach net-zero community GHG emissions by 2050.

**Compared to 2022 GHG emissions, total community-wide emissions have decreased by 3.9 per cent to 15.75 MtCO<sub>2</sub>e, 1.1 per cent lower than the 2005 baseline.<sup>1</sup>**

**Calgary's community-wide GHG emissions per capita have decreased 6.7 per cent since 2022 and 32 per cent compared to the 2005 baseline.**

Since 2005, Calgary's population has increased approximately 45.3 per cent, **meaning emissions have not proportionally increased with population growth.** The decrease in both total and per capita GHG emissions is a positive trend that can be attributed to the continuing decarbonization of the electricity grid as well as a slight decrease overall in natural gas and electricity usage. However, to achieve our goal of net-zero emissions by 2050 there must be a much more significant downward trend in total community-wide emissions. Anticipated increases in GHG emissions attributed to year-over-year population increases and continued growth in Calgary's economy must factor into the required pace and scale of emissions reductions.



<sup>1</sup>In 2023, The City initiated a second-party review of its corporate and community GHG emissions inventories and quantification methodology to confirm accurate reporting in alignment with industry best practices. Results and recommendations from this second-party review have been incorporated to calculate the 2023 GHG emissions inventories.

## GHG EMISSION SOURCES IN CALGARY

Buildings (homes, businesses and facilities) account for two-thirds (60 per cent) of Calgary's GHG emissions, while transportation (cars, motorcycles, transport trucks and transit) accounts for most of the remaining emissions (38 per cent.) Methane emissions from landfills and wastewater facilities contribute only about one per cent of emissions.

While progress has been made in the buildings sector, the transportation sector has increased in emissions as there are more vehicles on the road, producing more emissions compared to 2005. GHG emissions associated with the waste sector decreased primarily due to the implementation of landfill gas management activities.

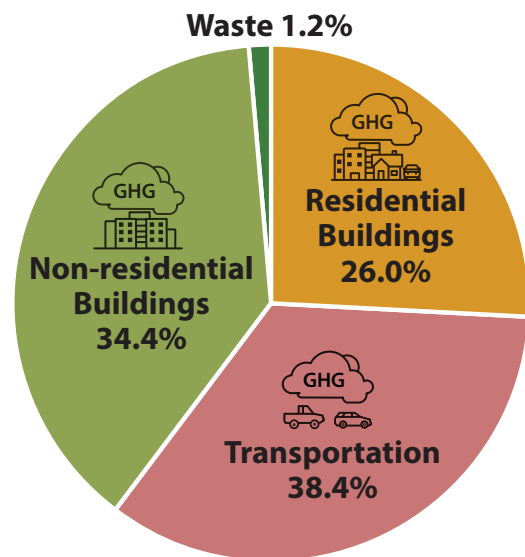


Figure 2. GHG Emission Sources in Calgary

GHG Residential Buildings	GHG Non-Residential Buildings	GHG Transportation	GHG Waste
26%	34.4%	38.4%	1.2%
<b>Change in GHG emissions from 2005 Baseline</b>			
↑ 3.2%	↓ 24.6%	↑ 34.1%	↓ 27.4%
<b>Change in GHG emissions from 2022</b>			
↓ 8.7%	↓ 8.7%	↑ 4.7%	↓ 1.4%



Electric vehicles that are part of The City's Green Fleet Strategy.

## CORPORATE GHG EMISSIONS

City-owned and operated assets (buildings, vehicles, etc.) and activities produce corporate GHG emissions. **In 2023, The City's corporate GHG emissions were 405 ktCO<sub>2</sub>e, 42.2 per cent lower than the 2005 baseline.**<sup>1</sup> Per capita corporate GHG emissions have decreased 3 per cent since 2022 and 60 per cent compared to the 2005 baseline, indicating that corporate GHG emissions have not increased despite increases in city services as Calgary continues to grow.

<sup>1</sup>The City is disclosing its market-based GHG emissions inventory in this report. This accounts for the purchase and sale of credits from emissions trading programs, like Renewable Energy Certificates.

GHG Corporate GHG Emissions	GHG Corporate Wide GHG Emissions per Capita
405 ktCO <sub>2</sub> e	0.29 tCO <sub>2</sub> e/per person
<b>Change in GHG emissions from 2005 Baseline</b>	
↓ 42.2%	↓ 60.4%
<b>Change in GHG emissions from 2022</b>	
no change	↓ 2.9%



# Climate goal: a climate-resilient city

*Calgary is preparing for and reducing the impacts of climate change.*

Calgary’s progress on adapting to climate change is measured through a combination of metrics that track Calgary’s exposure and vulnerability to climate hazards over time and other factors that contribute to Calgary’s climate resiliency.

## BEST PRACTICES IN CLIMATE ADAPTATION

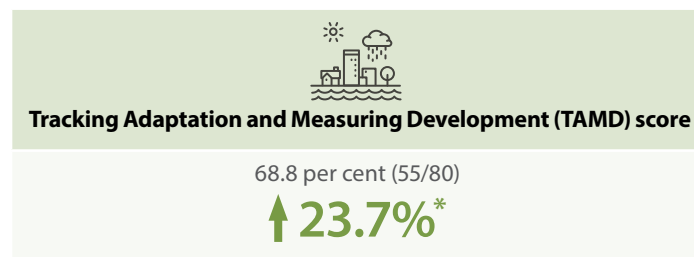
The Tracking Adaptation and Measuring Development (TAMD) scorecard is a tool for governments to evaluate whether they are following best practices in climate adaptation (Figure 3).

**In 2023, The City’s TAMD score was 68.8 per cent (55/80), an increase of 23.7 per cent from our baseline of 45 per cent (36/80) in 2020.**



Figure 3. TAMD Categories

Recent progress has been made in increased funding for adaptation actions; improving The City’s understanding of community climate risk (including exposure and vulnerability to climate hazards); and improving The City’s integration of climate resilience into decision making.



\*Change from 2020 baseline

## COMMUNITY CLIMATE RISK

The Community Climate Risk Index (CCRI) (Figure 4) assesses and scores Calgary’s neighbourhoods for climate risk based on their exposure and vulnerability to climate hazards. The index considers:

- six Calgary climate hazards, including drought, severe storms and extreme heat;
- social indicators, such as demographics, condition of infrastructure, buildings and homes; and
- the health of the local natural environment.

The CCRI was calculated for every neighbourhood in Calgary in 2020, and projects the risk out to 2050 based on anticipated changes in Calgary’s local climate.

Calculated every four years, the CCRI provides a baseline of community climate risk and enables us to track changes in the number of communities at different risk levels (very low, low, moderate, high) over time. **By the 2050s, if no significant climate adaptation action is undertaken, community risk scores are projected to increase by 78 per cent on average.**

The City uses TAMD and the CCRI to direct our climate adaptation work and focus climate programs on the most at-risk infrastructure, neighbourhoods and populations. Current climate programs are focused on water management, protection and restoration of natural areas, climate-resilient buildings and homes and climate impacts to people’s health and wellbeing.

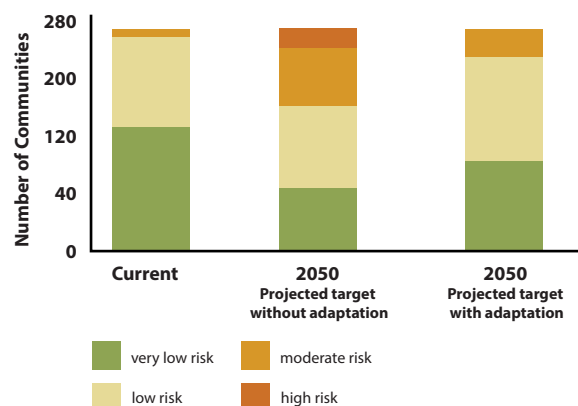


Figure 4. Community Climate Risk Index

# 2023 progress by focus area

*We created over 40 new or expanded programs, projects and plans.*

## CITY DESIGN AND DEVELOPMENT

**Four new programs launched in 2023 to support and incentivize climate-informed city design, making it easier for builders and developers to support climate action.**



How our city is designed and built significantly impacts resource consumption, GHG emissions and our vulnerability to climate hazards. Balancing growth between established areas and greenfield areas reduces GHG emissions, protects natural areas and supports sustainable transportation and mobility systems. Resilient and sustainable land-use practices may help communities to withstand and recover from climate events and adapt to longer-term climate change.

### GREEN BUILDINGS PRIORITY STREAM

The Green Buildings Priority Stream incentivizes energy-efficient buildings through an expedited development permit process, saving developers time and money by expediting permit reviews. In 2023, **12 development projects, representing 1,011 new homes**, were reviewed through the Priority Stream. The largest net-zero-ready residential project to date in Calgary (Avalon's Livingston project) was approved in under **60 days, adding 132 net-zero-ready homes from this project alone.**



Livingston by Avalon Master Builder is the largest net-zero ready residential project to date in Calgary. Photo provided by Avalon Master Builder, rendered by Gravity Architecture.

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### PLANNING ACTIONS FOR CLIMATE TOOLKIT

The Planning Actions for Climate Toolkit (PACT), a compilation of best practices in climate-informed planning, serving as a resource to planners, consultants and developers to reduce emissions and design more resilient communities and buildings.

### LAND USE BYLAW AMENDMENTS

Amendments to the Land Use Bylaw in 2023 incorporated new climate considerations and definitions to (1) clarify the Development Authority's ability to consider climate adaptation and mitigation as part of discretionary development permit review and (2) provide development permit exemptions for exterior insulation and cladding to support enhanced energy efficiency.

### CITY BUILDING PROGRAM

The City Building Program kicked off in 2023 to merge the Municipal Development Plan (MDP) and Calgary Transportation Plan into the Calgary Plan and revise the Zoning Bylaw and Streets Manual. Incorporating considerations for climate action and preserving natural areas is a key focus for this program and will provide statutory development targets, priorities and objectives to guide city planning now and into the future. The updated plan is anticipated to go to Council in late 2024, while the Zoning Bylaw and Streets Manual will continue into 2025.



## BUILDINGS AND HOMES

**Eight new programs launched in 2023 will reduce GHG emissions and improve the climate resilience of Calgary’s homes and buildings.**

Buildings in Calgary - including residential, commercial and industrial buildings - make up two thirds of community GHG emissions. **In 2023 GHG emissions from residential buildings increased 3.2 per cent, while non-residential buildings decreased 24.6 per cent from the 2005 baseline.**

Addressing the climate resilience of buildings protects Calgarians from unanticipated costs or disruptions from climate events and results in higher quality buildings that provide a refuge from the worst impacts of climate change.

### CLEAN ENERGY IMPROVEMENT PROGRAM (CEIP)

**CEIP** offers homeowners flexible financing to help with the upfront cost of energy efficiency and renewable energy upgrades that reduce GHG emissions. Popular upgrades include triple-pane windows, high-efficiency furnaces, Energy Star certified doors, insulation and solar PV panels. The City received \$15 million from the Federation of Canadian Municipalities for program operation costs and to finance clean energy improvement projects through CEIP.

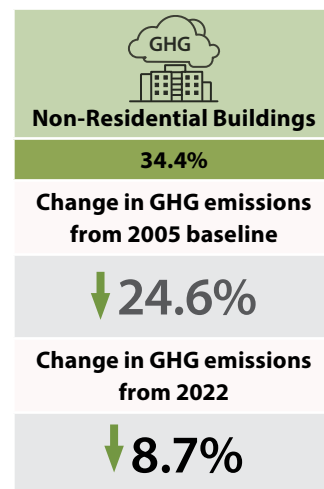
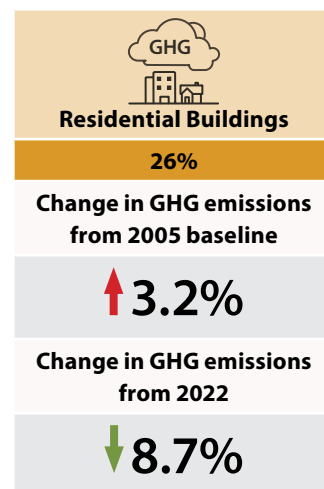


### Clean Energy Improvement Program (2023 progress)

- \$2.9M in investment from Calgarians
- 113 projects approved
- 27 projects completed
- Participating homes average a 30% reduction in annual energy use and GHG emissions

### ENERGY LABELING - NEW HOME PILOT

The **Home Energy Label Program** empowers Calgarians to understand their home’s energy use and make informed decisions to reduce their energy use and GHG emissions. In 2023, the voluntary **New Home Pilot** program was delivered. Through the existing building permit intake process, builders submit an EnerGuide label for new low-density homes and receive a rebate. Over 400 new homes committed to providing EnerGuide labels through the New Home Pilot. The pilot is planned to eventually transition into mandatory labelling for all new low-density homes. This will enable accurate assessment of the energy costs and emissions of new homes.



## HOME UPGRADES PROGRAM

The [Home Upgrades Program](#), partially funded by The City and delivered by Empower Me and Alberta Ecotrust Foundation, offers free energy efficiency education and home upgrades to qualified homeowners in both Calgary and Edmonton. Home upgrades are identified and installed based on each household's unique needs, such as new energy efficient furnaces and insulation. The program is designed to reduce energy costs and improve the comfort, safety and efficiency of homes.



### Home Upgrades Program (2023 progress)

- \$425K committed
- 28 home upgrades
- Participating households saved an average of 38 GJ/year in energy and 2.29 tCO<sub>2</sub>e/year in GHGs

## DOWNTOWN RETROFIT CHALLENGE

To integrate energy efficiency and climate resilience upgrades into projects participating in the Downtown Calgary Development Incentive Program, the [Downtown Retrofit Challenge](#) was designed to demonstrate the extent to which commercial property owners can improve energy performance while making strides toward the goals of The City's Climate, Housing and Downtown strategies. **In 2023, the Downtown Retrofit Challenge awarded \$1.2 million to Dominion Centre to offset the cost of improving energy efficiency and climate resilience measures in their office space conversion project.** This project is expected to achieve operational energy savings of approximately 8,400 GJ/year and GHG emissions savings of approximately 430 tCO<sub>2</sub>e/year when compared to the old office building.

## EMISSIONS NEUTRAL BUILDING INFORMATION EXCHANGE

In 2023, The City launched the [Emissions Neutral Building Information Exchange \(ENBIX\)](#), which brought together 28 partner organizations who have the shared goal of reaching net-zero GHG emissions in the construction, renovation and operation of buildings across Alberta.

ENBIX is an industry-led collaborative platform intended to share knowledge and advance emissions-neutral building and renovation practices across Alberta.

The platform offers educational and networking events and research and collaboration, shares case studies and stories, and leads or partners on programs and communities of practice. The City provides funding and participates in the Advisory Committee, events and supports collaboration projects.

## SUSTAINABLE BUILDING POLICY FOR CITY BUILDINGS

The [Sustainable Building Policy](#) and accompanying Sustainable Building Guidance Document were updated in 2023 to align with the Climate Strategy. The policy and guidelines establish new minimum emissions and energy performance standards (approximately 20 per cent lower than the previous iteration) and design strategies to reduce climate risk for all City buildings.



The Haskayne Legacy Park Pavilion with the expansion of its PV system has a goal of becoming The City's first net-zero emissions building.

## CLIMATE RISK AND RESILIENCE ASSESSMENTS

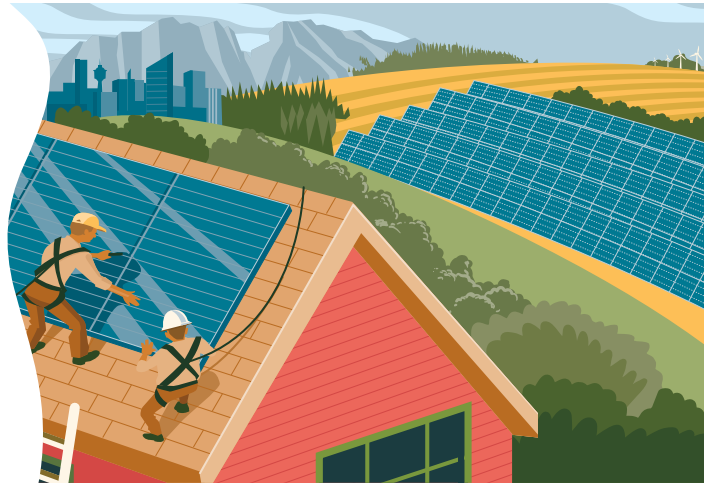
**In 2023, eight Climate Risk and Resilience Assessments and three climate risk screening assessments were completed on major City and partner projects and infrastructure programs.** A [climate risk assessment framework and guidance document](#) was published in early 2024 to support both City and external projects to build more resilient infrastructure. This work is increasingly being referenced for use in corporate, private and national applications and is recognized as leading the way in Canada in the pursuit of more climate-resilient infrastructure to protect and serve Calgarians.

## ECONOMIC CLIMATE RISK ANALYSIS

An economic analysis was completed in 2023 on the cost of adapting City-owned buildings to climate change. **Implementing adaptation measures could result in cost savings ranging from \$1.2 billion to \$1.6 billion over the next 70 years.** This analysis informs investment strategies that will save costs, protect public infrastructure, and ensure continuous service delivery and civic operations.

## ENERGY

**In 2023, over 20 megawatts (MW) of solar photovoltaic (PV) was installed on building rooftops and The City identified new opportunities to accommodate more low-carbon energy in Calgary going forward.**



The City has taken actions to support solar PV installations on corporate, community and privately owned buildings. Transitioning the electricity grid from high-carbon energy sources such as fossil fuels to low-carbon alternatives will directly reduce Calgary's GHG emissions. The City is advancing this transition by supporting solar PV installations on rooftops and the expansion and decarbonization of district energy systems.

A key action for The City is the procurement of 100% renewable electricity for City operations. Since 2009, an estimated 4.2 million tonnes of corporate GHG emissions have been avoided over the duration of The City's electricity contract. Without this contract, The City's corporate GHG emissions would have been 55% higher in 2023.

### DISTRICT ENERGY OPPORTUNITY STUDY

District energy systems supply heating, cooling and power to multiple buildings from a centralized plant. This provides reliable energy and costs to consumers with the ability to use numerous low-carbon resources (e.g., bioenergy, heat recovery, geothermal, etc.).

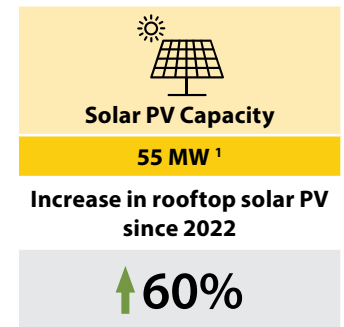
The City's District Energy Opportunity Study will inform the decarbonization and expansion of existing systems and new low-carbon district energy systems.

### RESIDENTIAL SOLAR PV

**The installed solar capacity on homes has doubled since 2022**, in part through programs and funding offered by The City (e.g., CEIP) and the Government of Canada (e.g., Greener Homes Grant and Loan Program). Over 16 MW installed on Calgary homes in 2023 brings the total residential solar PV capacity to more than 32 MW. The City's Clean Energy Improvement Program approved 37 solar PV projects with over 350 kW in projected capacity. The City committed \$835K in property-tied financing and \$97K in incentives to these solar projects.



**CEIP has supported the reduction of an average of 80 tonnes of GHG emissions over the lifetimes of each solar PV installation financed.**



<sup>1</sup>Cumulative total amount of rooftop-mounted solar PV capacity installed across residential, commercial and industrial buildings by the end of 2023.

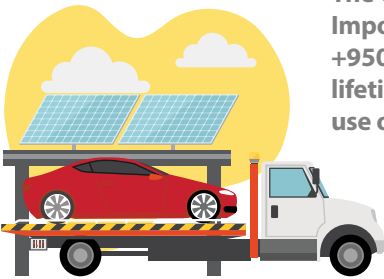
### TAX INCENTIVES FOR RENEWABLE ENERGY ON BROWNFIELD SITES

The Council Policy for tax incentives for renewable power generation developments on brownfield sites was adopted by City Council in late 2023. This policy is intended to support increased renewable energy generation within Calgary and utilization of brownfield sites for higher value through a tax-based incentive program. A bylaw was passed in early 2024 that establishes eligibility criteria for a tax exemption or deferral and the processes for accepting and evaluating applications.

### CORPORATE SOLAR PV INSTALLATIONS

**The City owns 23 solar PV installations with over 6.4 MW total installed capacity.**

In 2023, a 115 kilowatt (kW) solar PV system was designed and constructed on the Calgary Parking Authority Impound Lot Parkade.



**The Calgary Parking Authority Impound Lot Parkade will avoid +950 tonnes of GHGs over its lifetime, equal to the electricity use of 635 homes for one year.**

### COMMUNITY SOLAR PV

The ENMAX Community Solar Fund is a partnership between The City and ENMAX to support solar installations on community buildings. Feasibility assessments for 31 of the community buildings in the program indicated a planned installation of over 2.9 MW with over 2,750 MWh in annual production. The 23rd installation was completed in 2023 with eight more undergoing feasibility assessments, detailed design or construction in 2024.



**+19,800 tonnes of GHGs avoided over the lifetime of 31 ENMAX Community Solar Fund projects, equal to the electricity use of 12,000 homes for one year.**

### BONNYBROOK COGENERATION ENERGY PROJECT

**A new 4.6 MW gas turbine and 0.6 MW steam turbine expanded the Bonnybrook Wastewater Treatment Plant's Power Generation and Heating facility.** Biogas, a by-product of wastewater treatment and a free and renewable source, provides power generation and heating. This substantially reduces the plant's utility costs by minimizing external sources of electricity and natural gas. The plant's onsite power generation is anticipated to meet or exceed its electrical demands, exporting excess power back to the grid.



Solar installation at the 69th Street Station Park and Ride.  
ISC: Unrestricted



## MOBILITY

The City is leveraging provincial, federal and municipal funding to invest in active transportation, public transit services, low-carbon vehicles and transportation infrastructure to reduce GHG emissions.

Transporting people and goods around Calgary accounts for more than one-third of community emissions. **In 2023, GHG emissions from transportation increased 34.1 per cent from the 2005 baseline.** Shifting to active and low-carbon transportation modes, like walking, wheeling and transit, is a priority for Calgary. Where personal vehicles are required, transitioning to zero or low-emission vehicles will lower these emissions.

### LOW AND ZERO-EMISSION BUSES

Calgary Transit’s diversified fleet strategy transitions The City’s fleet to *low- or zero-emission buses*. The strategy assesses and tests alternative fuel options to determine the best fuel sources for minimizing GHG emissions while ensuring consistent and reliable service. Options being considered include renewable diesel, hydrogen, electric and renewable natural gas. Calgary Transit is collaborating with other transit agencies to learn about their successes and challenges with alternative fuel.

Calgary Transit’s 40-Foot Electric Bus Project is supported through grant funding from **Infrastructure Canada’s Zero Emission Transit Fund (up to \$325 million)**, financing from the **Canada Infrastructure Bank (\$165 million)**, and City funding (\$100 million) as part of the 2023-2026 Service Plans and Budgets.

### GREEN FLEET

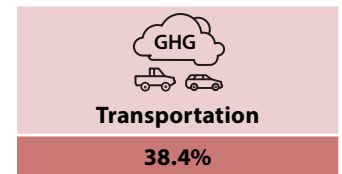
The City *piloted renewable diesel in five waste and recycling refuse trucks* to test alternative fuel that can bridge the transition away from gasoline and petroleum diesel. The pilot monitored for fuel economy, engine performance, maintenance observations and operator experience. The benefits of emission reduction will be weighed against fuel costs and feasibility and will inform future pilots or broader scale implementation.

With funding from Emissions Reduction Alberta, The City’s Advancing Hydrogen in Municipal Fleet project will evaluate a variety of hydrogen vehicles and equipment to understand the current state of hydrogen technology, its application in a municipal environment and building code and safety requirements. The project will test both fuel cell electric technology and hydrogen combustion technology.

### PATHWAYS AND BIKEWAYS

A number of projects were initiated or continued in 2023 within The City’s 5A network (Always Available for All Ages & Abilities). The City worked with the community of Dover to *improve streets and create an inclusive, safe mobile network*. This includes a walking, cycling and wheeling system throughout the community with connections to schools, parks and destinations outside the neighborhood. Phase 1 construction completed walking and wheeling improvements and traffic calming measures in 2023. The Government of Canada’s Active Transportation Fund provided \$1.3 million in funding for Phase 2 construction which is scheduled to start in 2024.

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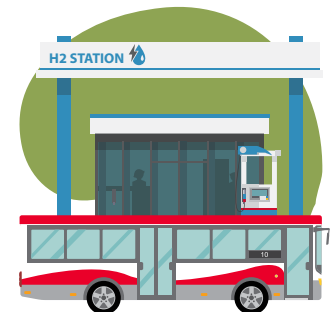


Change in GHG emissions from 2005 baseline

↑ 34.1%

Change in GHG emissions from 2022

↑ 4.7%



Calgary Transit received \$137,500 from Alberta Innovates, \$137,500 from the Green Municipal Fund and \$137,500 from The City for a hydrogen bus feasibility study.

## WASTE

**In 2023, The City funded seven circular economy projects and enhanced its landfill gas management program.**



Emissions from waste, including methane from landfills and the compost facility, account for over a third of corporate GHG emissions. **In 2023, GHG emissions from waste decreased 27.4 per cent from the 2005 baseline.** The City is reducing methane emissions through landfill gas management infrastructure and by encouraging Calgarians to reduce or divert their waste.

### CIRCULAR ECONOMY INITIATIVES

The Circular Economy Initiatives is a waste reduction program that provides resources for community organizations leading waste reduction projects. Between 2023 and 2026, the Circular Economy Initiatives will pilot two focus areas: the [Circular Economy Grant \(CEG\)](#) and the [Circular Economy Program \(CEP\)](#).

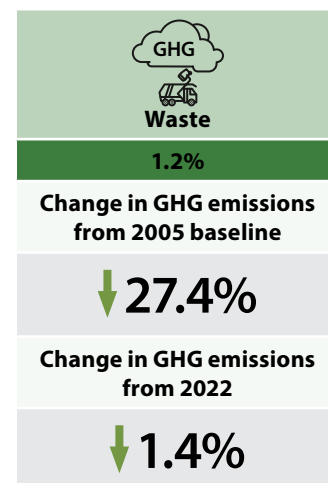
- **The CEG launched in 2023 and provided \$5,000-\$25,000 in one-time funding for non-profit organizations to lead local waste reduction and reuse initiatives with seven projects funded in the first year.** The CEG was met with tremendous interest from senior centres, environmental non-profits, community associations and healthcare non-profits. The program reopened for applications in early 2024.
- **The CEP also launched in 2023 and provided up to \$75,000 per calendar year to community organizations providing free ongoing programs on repair and reuse and food waste reduction.** This included three programs initiated in 2023 that are specific to [Circular Food Economy](#) and are designed for the general public, newcomers and school students.

### LANDFILL GAS CAPTURE

In 2023, a strategy and plan were developed to enhance The City's landfill gas management program by focusing on reducing GHG emissions and beneficial use of landfill gas. Several emissions reduction projects progressed in 2023, including:

- **A landfill gas capture and destruction facility was completed at the Springbank Closed Landfill,** which converts methane in the captured gas to carbon dioxide, reducing the global warming impact of the captured landfill gas. This project reduced 287 tonnes of GHG emissions in 2023.
- **Construction of an 846 kW facility that converts landfill gas to electricity commenced in 2023 at the East Calgary Waste Management Facility.** Commissioning is expected to be completed in spring 2024.

The City is pursuing opportunities to generate revenue from the sale of GHG emissions offset credits from landfill gas capture and destruction projects to reinvest in GHG emissions reduction infrastructure projects.





## WATER

**In 2023, The City advanced work on the Sunnyside Flood Barrier and developed key strategies for drought resilience and stormwater management.**

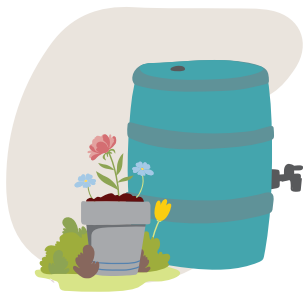


Climate change and water related impacts - including floods, droughts and declining water quality - are intrinsically linked and impact people, infrastructure and the environment. Calgary may experience multiple climate hazards in the same year (e.g., wildfire, extreme heat, drought, intense storms and flood) heightening the need for preparedness.

### DROUGHT RESILIENCE

Council approved the Drought Resilience Plan in October 2023, which sets the long-term direction for proactive drought resilience measures. Concurrently, The City enacted outdoor watering restrictions to manage severe drought conditions in the late summer of 2023. These conservation efforts reduced the risk of stress on fish and aquatic species and ensured Calgary meets its regulatory obligations for wastewater treatment.

The City also continued to advance drought resilience actions, including advocating for an upstream storage reservoir on the Bow River and proactively preparing for future drought conditions by collaborating with the Government of Alberta and other major water license holders to develop voluntary Water Sharing Agreements.



**In just one-year, The City supported Green Calgary's rain barrel sales program skyrocketed from 1,550 barrels sold in 2023 to an anticipated 2,500 in 2024, demonstrating a growing community commitment to water conservation.**

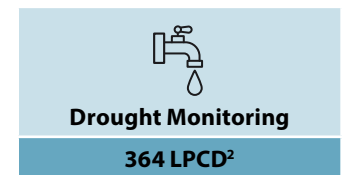
### WATER SECURITY FRAMEWORK

*The Water Security Roadmap project was initiated in 2023*, in partnership with WaterSMART with Alberta Innovates Grant funding support. The multi-year project seeks to understand how climate change will impact long-term regional water availability. Through a series of workshops in 2023, the project team confirmed goals and explored future states with City subject matter experts, developed climate scenarios and completed a technical assessment of water reuse.



**Reduction in flood risk since 2013**

**↓ 55%**



**Reduction in daily water use (LPCD) from 2003 baseline**

**↓ 29.7%**

<sup>1</sup> Calgary's River Flood Risk expressed as the amount of potential flood damages from future floods, averaged per year (\$ million). Baseline is \$168 million per year, based on conditions in 2012.

<sup>2</sup> Litres per capita per day (LPCD) includes water used by residents, businesses and institutions as well as water lost through leaks, unaccounted for or not billed. This total is then divided by the number of people living in Calgary

### SOURCE WATER PROTECTION

The *Source Water Protection Plan and Policy* integrates water quality protection considerations into City and regional land use and development decisions upstream of The City’s two water treatment plants. In 2023, The City began identifying Drinking Water Protection Zones around The City’s drinking water intakes to further understand water quality threats and develop risk mitigation actions. Implementation of the Zones will be scoped in 2024.



Since 2013, approximately 55% of Calgary’s flood damage exposure - or over \$90 million in average annualized damages has been eliminated. By 2025, when SR1 is fully operational, an additional 15% of damage exposure will be averted.

### RIVER FLOOD RESILIENCE

The 10-year anniversary of the 2013 southern Alberta floods was commemorated in 2023. The City, with financial assistance from the Government of Alberta and the Government of Canada, has invested or committed approximately \$1 billion in flood mitigation infrastructure for Calgary, including the Springbank Offstream Reservoir (SR1) project.

In 2023, The City:

- advanced work on the Sunnyside Flood Barrier, estimated to be complete in 2025;
- worked with the Government of Alberta on a potential new Bow River Reservoir;
- updated flood hazard maps;
- and updated the regulatory framework for flood-resilient development and property-level flood readiness and risk reduction.

### STORMWATER INFRASTRUCTURE

In 2023, Council approved *Calgary’s Stormwater Management Strategy* with climate resilient stormwater management systems as one of its core outcomes. The actions identified in the Strategy improve The City’s understanding of climate impacts on the stormwater system, identify climate-enhanced construction, operation and maintenance measures and protect public safety and property from stormwater flooding.



The City is incorporating climate-adjusted rainfall projections in the design of drainage improvement projects, City-led drainage planning studies and guideline and manual updates.



The Downtown Flood Barrier is 1.39km of steel sheet piles, earthen berms and concrete walls built to resist a 1:200 year flood event.  
ISC: Unrestricted

## NATURE AND ECOLOGY

The City completed 40 ha of restoration projects in 2023 for a total of 353 ha restored, or currently under active restoration, since 2007.



Healthy trees, plants, wetlands, and natural areas are critical for sequestering carbon, reducing climate risk and providing ecosystem services that enhance the wellbeing of all Calgarians. A biodiverse ecosystem is more resilient to the effects of climate change and healthy natural areas help mitigate the impacts of increasing heat, flood and drought events. The City continues to protect environmentally sensitive areas, restore habitat and improve the health of riparian areas in Calgary.

### ENVIRONMENTALLY SIGNIFICANT AREAS (ESAs)

In 2023, **81 per cent of ESAs were protected during the land use planning process, for an increase in 139.8 ha of natural area land protected** in Calgary compared to an average of 56 per cent for 2019-2022. Environmental Reserve is a key tool to protect ESAs in greenfield development but has limited ability to protect certain habitat types such as tree stands, grasslands, full extent of riparian areas and river valleys and some wetland types.

### NATURAL HABITAT RESTORATION

The [Habitat Restoration Program](#) contributes to Calgary's climate resilience by improving the health and biodiversity of Calgary's natural areas. Natural areas and natural infrastructure reduce the risk of climate impacts - such as heat, flood and drought events - and are important to the health and well-being of Calgarians. At the end of 2023, The City has completed 55 restoration projects since tracking began in 2007, including six that were initiated in 2023, for a **total restoration area of 353 ha** (171 ha restored and 182 currently under restoration at the end of 2023).

### RIPARIAN ACTION PROGRAM

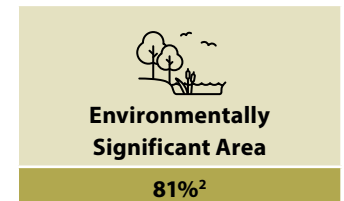
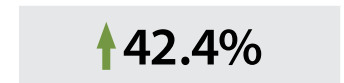
The Riparian Monitoring Program (RMP) launched in 2017 to monitor progress toward meeting the Riparian Action Program's health score of 72 per cent. In 2023, the health score improved to 69 per cent from the 61 per cent baseline due to improved management of riparian areas, restoration work and natural recovery of vegetation from the 2013 flood. The City has implemented over 120 riparian restoration projects since 2007; about 50 per cent are complete.

### URBAN TREE CANOPY

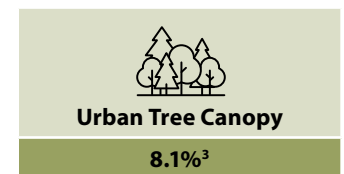
A healthy tree canopy supports Calgary's climate resilience by providing shade and cooling, reducing stormwater runoff and improving air quality. Trees also sequester carbon as they grow and support Calgary's biodiversity. In 2023, **The City's urban forestry tree planting program planted approximately 6,000 large caliper, 3,000 container and 91,000 seedling trees for a total of 100,000 trees.** These trees will help to replace the 6,000 established trees lost in 2023 due to storms, aging and development and may help support additional tree canopy coverage over time when they mature. Despite these efforts, **tree canopy has not increased since 2022 and more trees are needed to meet MDP targets.** The City is actively exploring funding opportunities to increase the number of trees planted in future years.



Amount restored relative to 2025 target



Protection and restoration relative to 2026 target



Change in the urban tree canopy since 2022

**no change**

<sup>1</sup> Cumulative total natural restoration area (ha) as of 2023.

<sup>2</sup> Per cent of ESA protected or restored calculated at land use amendment/outline plan approval. Annual percentages are influenced by the location and volume of new community land-use plans.

<sup>3</sup> Per cent of total (public and private) lands with tree canopy.

## PEOPLE

**In 2023, The City supported Calgarians, community organizations and City employees to better prepare for, cope with, respond to and recover from climate impacts through information sharing, improving equity and capacity building.**



While every person in Calgary will be impacted by climate change, some are more vulnerable than others. Through improved knowledge and customized action, vulnerability can be reduced so that all Calgarians can adapt to our changing climate. Collaboration and relationship building with Calgarians is critical, including working with community organizations to understand the underlying causes of vulnerability and relationship building with Indigenous Peoples and partners to seek ways of collaborating on climate solutions.

### CLIMATE RESILIENT COMMUNITIES WORKING GROUP

The Climate Resilient Communities Working Group brings together climate-vulnerable and equity-deserving Calgarians to share their lived experiences of climate change. This engagement will inform the co-development of the Community Climate Adaptation Action Program, launching in 2024. The program supports Calgarians and their communities in implementing actions to reduce risk and improve climate resilience. The initial roll-out phase is directed towards Racialized Calgarians, Indigenous people, and youth through partnerships with organizations that serve these communities.



Children cool off during extreme heat at a City spray park.

### DISASTER MANAGEMENT

Calgary's Emergency Management Agency (CEMA) continually works to improve Calgary's ability to respond to, withstand and recover from climate-related disasters and extreme events. In 2023, CEMA completed thousands of hours of training and exercises to ensure a continual state of readiness. An exercise focused on extreme heat response deployed six temporary water stations in areas of high pedestrian traffic to improve access to water for residents, visitors and pets during high temperature summer days. CEMA also helped establish guidelines for the development of waste management facilities and hydrogen fueling stations to ensure they are climate-resilient. They also developed guidelines to identify which buildings in Calgary are important for disaster recovery, ensuring communities will continue to have resilient facilities to assist them during disasters.

**The City supported over 4,000 evacuees from northern Alberta and the Northwest Territories during the 2023 wildfire season.** The Emergency Operations Centre (EOC) was open for 54 days and Canada Task Force 2 (CAN-TF2) deployed 14 times to other jurisdictions in support of provincial and interprovincial incidents. Proactive investments in emergency preparedness and cross-jurisdictional relationships support communities during extreme events that are becoming more common due to climate change.

### RE.CLIMATE COMMUNICATIONS, OUTREACH AND EDUCATION STRATEGY

A significant review of climate outreach and education initiatives was undertaken in 2023 to understand the current state, assess alignment with best practice and develop a climate education, outreach and communications strategy (You, Me & Thriving Calgary: Pathways to 2050). This work included a prioritized set of deliverables for this budget cycle and a marketing strategy. Delivery of this strategy will rely on collaboration and integrated efforts across community partners and City of Calgary teams.

## FOOD RESILIENCE - FARM STAND PROGRAM

Since 2017, The City has supported the Farm Stand Program to provide better access to fresh and healthy produce for Calgarians, while strengthening the food system to be able to continue to provide good food into the future. In 2023, the program supported 28 formal partnerships between vendors and hosts with stands on City-property – enabling 32 stands run by participating vendors on private property.



### In 2023, the Farm Stand Program:

- Saw approx. 20,000 customers
- Enabled 38+ community food pantries and fridges, 47+ affordable fresh food programs and 70+ food hamper providers.

After undergoing a thorough food systems assessment, The City is drafting a new Food Resilience Plan which is currently under review through engagement with the public. The plan is slated for completion in September 2024.

## STRIVING FOR ENERGY EQUITY

Energy inequity, or energy poverty, refers to households that experience a state of poverty due to the cost of their energy bills. In Alberta, this is about one in five households and growing. The City is developing an Energy Equity Strategy to help improve home energy efficiency and provide cost savings so all Calgarians can have a better quality of life. The Strategy will be released by the end of 2024, with programs set to launch 2025. To lay the groundwork effectively, The City is actively engaging with equity-deserving residents and organizations involved in the field of energy and housing equity.

The [What We Heard Report](#) provides comprehensive insights from the first phase of engagement, which concluded January 2024. Five focus groups were hosted with equity-deserving groups, including Indigenous people, visible minorities, renters, seniors, lone parents and people with disabilities.

## WATER, LAND AND CLIMATE SUMMITS

The Water, Land & Climate Summits were borne out of a process of pre-engagement with Nations in 2022 to understand how The City and Indigenous communities could work together to strengthen relationships on matters related to rivers, water, land and climate change. Community coordinators, Elders and Knowledge Keepers representing all Treaty 7 Nations, Otipemisiwak Métis Government, urban Indigenous Calgarians and City staff were invited to participate, in the aligned process.

Since January of 2023, four Summits have taken place with the themes of ‘The Rivers Flow: Flood and Drought’, the ‘Health of the River’, ‘Climate Change and the River Valleys’ and ‘Landscapes and Land Uses’. The summits offered the opportunity for The City and Nations to come together in the spirit of relationship building, seeking ways of collaboration and the co-creation of initiatives resulting in mutual benefits for Nations and The City.



City staff and Nation members at the North Water, Land and Climate.



## Climate education and outreach events

In 2023, approximately 3,000 individuals attended Calgary Climate Symposium’s 12 sessions with topics on community solar generation, food systems resilience, home retrofits for energy efficiency, climate equity and reconciliation and electrification of our transportation systems.

In partnership with SAIT, Arusha Centre, CPAWs and others, The City organized or sponsored 19 other climate outreach offerings in 2023, with a total of 3,800 participants. This included Energy Efficiency Day, the Eco-Solar Home Tour, District Energy Tour, Alberta Solar Show and Earth Hour.

## CORPORATE GOVERNANCE

**We created new funding and financing mechanisms to invest in climate action. We also delivered a new reporting framework and community-facing dashboard to improve transparency and accountability on collective climate action.**



Investment in climate action positions The City as a leader in the low-carbon economy and corporate environmental, social and governance (ESG) practices: attracting residents, businesses and financial markets. Our municipal investments enable funding from other orders of government and private investors who are looking for opportunities to align with decarbonization, climate risk reduction and/or ESG principles.

### EXTERNAL INVESTMENT AND REVENUE GENERATION

**In 2023, The City secured \$259 million in provincial and federal funding to support projects that advance our climate outcomes<sup>1</sup>.** This includes projects in active transportation, natural areas, electric vehicle charging infrastructure, energy efficiency in residential homes and the expansion of our composting facility. We applied for an additional \$37 million and are awaiting approval from our provincial and federal partners. The City continues to scan for additional funding opportunities.

We are evolving a financial toolkit for new financing mechanisms to fund accelerated climate action for both The City and the community. The toolkit includes non-tax supported funding sources and financing mechanisms (Figure 5).

<sup>1</sup> Funding totals as of May 31, 2024.

### CENTRALIZED CLIMATE FUND

The \$30 million Centralized Climate Fund (CCF) is available for City and Civic Partner capital infrastructure projects to fund the costs associated with reducing GHG emissions and/or climate risk. This funding supports:

- reduced operating costs;
- new revenue from the production of potential carbon offsets and credits;
- avoided future costs related to the impacts of climate change; and
- healthier and safer buildings for all Calgarians.



**20 projects approved, located in 11 wards, estimated 270,000 tonnes CO2e reduced over 25 years. Equivalent to removing approximately 83,000 passenger vehicles off the road for one year.**

Projects supported by the CCF that will be under construction in 2024 include the Calgary Soccer Centre Redevelopment, Symons Valley Library, Sunalta Community Hub, Ramsay Rink Solar, East Calgary and Blackfoot Landfill Gas Management projects, Public Building District Energy Connection, Haysboro LRT Expansion, Chinese Mark Gardens and Calgary Housing roofing, siding, windows and doors upgrades.

## FINANCIAL TOOLKIT FOR CLIMATE ACTION

<b>Labelled bonds</b> <i>Debt financing</i>	<b>Impact investors</b> <i>Debt financing</i>	<b>Carbon credits/offsets</b> <i>Revenue generation</i>
Green or sustainability bonds provide an alternative and often more cost-effective option for debt financing climate projects. We are exploring labelled bonds as an option to debt finance applicable climate-related capital projects.	Financial partnerships with impact investors like the Canada Infrastructure Bank allow The City to invest in climate-related projects with preferential borrowing terms, making projects like the <a href="#">zero-emission buses purchase</a> more financially viable.	The City can generate revenue through carbon credits and/or offsets to reinvest in new carbon reduction projects. A policy is being developed to effectively participate in the carbon market (e.g., Alberta TIER offsets, Renewable Energy Certificates, Clean Fuel Regulations Compliance Credits, etc.). We will investigate and/or implement these and other mechanisms through 2024.

Figure 5. Preliminary financial toolkit

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THE CITY’S CLIMATE REPORTING FRAMEWORK

The City’s Climate Reporting Framework (Figure 6) is composed of three reports that include key climate progress information for different audiences. These reports are supported by a new cross-corporate climate and environment analytics system. A public-facing dashboard provides data on our progress toward community and corporate climate and environment targets. **The goal is to empower Calgarians to take action with transparent and accessible information, encouraging greater community involvement.**



**Calgary as a leader in climate reporting.**

In 2023, The City of Calgary earned an “A list” ranking from CDP (a global disclosure system for climate impact reporting) for the sixth consecutive year for excellence in reporting and transparency. Only 13% of the 939 municipalities reporting to CDP achieved this ranking.

Calgary has also earned four Global Covenant of Mayors Badges (Compliant, Mitigation, Adaptation and Energy) for our outstanding commitment to global climate action through the [Global Covenant of Mayors for Climate and Energy \(GCoM\)](#) in Canada.



Calgary skyline with Bow River.

**CLIMATE & ENVIRONMENTAL ANALYTICS SYSTEM AND DASHBOARD**  
Supports advancing and disclosing Calgary’s climate measurement and reporting.

 <p><b>Progress Update Report</b> <i>Executive Committee</i></p> <p>Semi-annual report on The City’s performance on the 2023-2026 Service Plans and Budgets. <b>This report features the Climate key result area and annual cross-corporate climate budget and expenditure.</b></p>	 <p><b>Annual Financial Report</b> <i>Audit Committee</i></p> <p>Annual report of The City’s consolidated financial statements. The City’s <b>Climate-Related Financial Disclosure</b> is featured within the Report’s unaudited section.</p>	 <p><b>Climate Progress Report</b> <i>Community Development Committee</i></p> <p><b>Details The City’s progress on implementing the actions within the Climate Implementation Plan</b> in alignment with achieving the long-term targets and goals of the Calgary Climate Strategy – Pathways to 2050.</p>
<p>March/April &amp; September</p>	<p>April</p>	<p>July</p>

Figure 6. The City’s Climate Reporting Framework  
ISC: Unrestricted

# Collaboration

*We developed new and strengthened partnerships with industry, community organizations and other orders of government to enable our programs, support our transition to a low-carbon economy and catalyze change in the community.*

Climate change is a global problem that requires everyone to participate. The City has a responsibility - both globally and locally - to reduce Calgary's share of GHG emissions and reduce the impacts of a changing climate on the community which has significant financial impact. But we can't do it alone.

The City plays a critical role of leader, connector, innovator, partner, educator, regulator, funder and advocate. To enable accelerated climate action, in 2023, The City worked with the private sector, and community and non-governmental organizations to create new partnerships and collaborations.

Together we can collectively address climate change and position Calgary as a leader in the global energy transition with a greener, more diverse economy, showcasing our community as one of the most livable cities in the world.



**90+ new partnerships and collaborations were established to drive new climate programs and projects.**

## A MULTI-JURISDICTIONAL APPROACH

The City works with all orders of government and other Canadian cities to collectively move forward on climate action.

We rely on guidance, regulations and funding developed by the federal government through building codes, carbon pricing, energy regulations and climate strategies. We work with the provincial government to support the economic prosperity of Calgary and the safety of Calgarians while we transition to a lower-carbon economy and prepare for climate-related impacts such as flooding, drought, forest fires and food insecurity.



**We partnered with the provincial and federal governments on \$1 billion in river flood mitigation infrastructure, reducing flood damage risk exposure by 55%. Equal to \$90 million in average annualized damages.**

In 2023, we partnered with the City of Edmonton on the development and delivery of new programs such as the Home Upgrade Program and Emission Neutral Building Information Exchange. The City also joined three new national working groups along with the other major municipalities in Canada, that are evolving guidance on municipal climate budgets, carbon budgets, natural asset evaluation and climate and nature-based disclosure reporting best practices from other leading international cities.

## A message from Calgary Economic Development

**Energy & Environment is a priority sector for Calgary Economic Development and Calgary is home to leaders in the energy transition. Consortiums like The Pathways Alliance and the Clean Resource Innovation Network (CRIN), demonstrate the energy industry's commitment to reducing emissions from resource production. Calgary-based companies Eavor, Carbon Upcycling and Summit Nanotech all made the 2024 Global Cleantech 100 list.**

**To support our clean technology sector, alongside the Energy Transition Centre, accelerators and incubators including Plug and Play, SVG | Thrive, CDL-Rockies and Avatar Innovations spur and fund Calgary-based startups focused on clean technologies. As our city continues to diversify its economy, we continue to focus on our unique advantages in ag-tech, hydrogen, electrification (includes lithium value chain), energy efficiency, digitalization, geothermal, grid modernization, sustainable fuel and carbon capture, utilization and storage. As identified in the Energy Transition Report, investing in a net-zero future through these key sub-sectors in Alberta will create 170,000 new jobs and add \$61.0 billion of annual GDP in 2050 compared to 20,000 new jobs and \$4.0 Billion of annual GDP from the 'business-as-usual' pathway.**



# Next steps in 2024

*Progressing on climate change is a long game that will take us to 2050 and beyond. We are already thinking about the next steps needed to get us there.*

The Implementation Plan shows The City's commitment to emissions reductions and climate resilience actions throughout 2023 to 2026 and builds the foundation for the next Service Plans and Budgets.

## NEXT STEPS ON THE PATHWAY TO A NET-ZERO CITY

1. Building out the offering of public programs for energy and GHG emissions reduction in buildings, such as launching the **Home Energy Performance Map** and developing a **Commercial Clean Energy Improvement Program**.
2. Developing and implementing strategies, plans and projects to support low-carbon mobility and alternative fuels within The City and the community by updating the **Electric Mobility Strategy** and developing a **Public Charging Study**.
3. Reducing GHG emissions from landfills through waste reduction and diversion programs and services, **expansion of the Calgary Composting Facility**, and offering the **Circular Economy Grant** to non-profit organizations.
4. Integrating GHG emission reduction measures into existing or new programs and processes, such as incorporating energy efficiency incentives into the planned **Secondary Suites Incentive Program**.
5. Improving energy equity by developing an **Energy Equity Strategy** to guide income-qualified programming and help underserved communities.



Calgary skyline with fall colour.

## NEXT STEPS ON THE PATHWAY TO A CLIMATE-RESILIENT CITY

1. Supporting vulnerable communities through the **Climate Resilient Communities Working Group** and establishing a **grant program** that provides funding for resilience projects initiated by Calgarians.
2. Protecting and restoring natural areas and natural infrastructure through the development of **Habitat Restoration Plans** and the completion of the **Roadside Naturalization Pilot Project**.
3. Guiding Calgary towards a more resilient food system by finalizing and implementing **Calgary's Food Resilience Plan**.
4. Addressing community vulnerability to extreme heat by creating a **heat mitigation prioritization map** for future amenities (cooling locations, water fountains, spray parks, shade structures, etc.), releasing an **urban heat mapping tool** for the public and updating **extreme heat plans** to align with Provincial guidance.
5. Developing a roadmap with key investments, policies and processes that will help mitigate the impacts of climate change on river flows following completion of the **Water Security Framework**.
6. Identifying new policies, programs, tools and educational opportunities to reduce Calgary's overall water demand through updated to the **Water Efficiency Plan**.
7. Integrating the **natural asset valuation** work into The City's asset and risk management and decision-making processes.

## IMPROVEMENTS IN REPORTING

The City is simplifying the Climate Progress Report to be bi-annual in frequency and primarily web-based in conjunction with the new community-facing climate and environment dashboard on calgary.ca. The City is also collaboratively working with the Climate Advisory Committee on integrating climate into our corporate processes and decision-making, improving reporting through the inclusion of new metrics and enhancing transparency on The City's progress towards our targets and goals.

