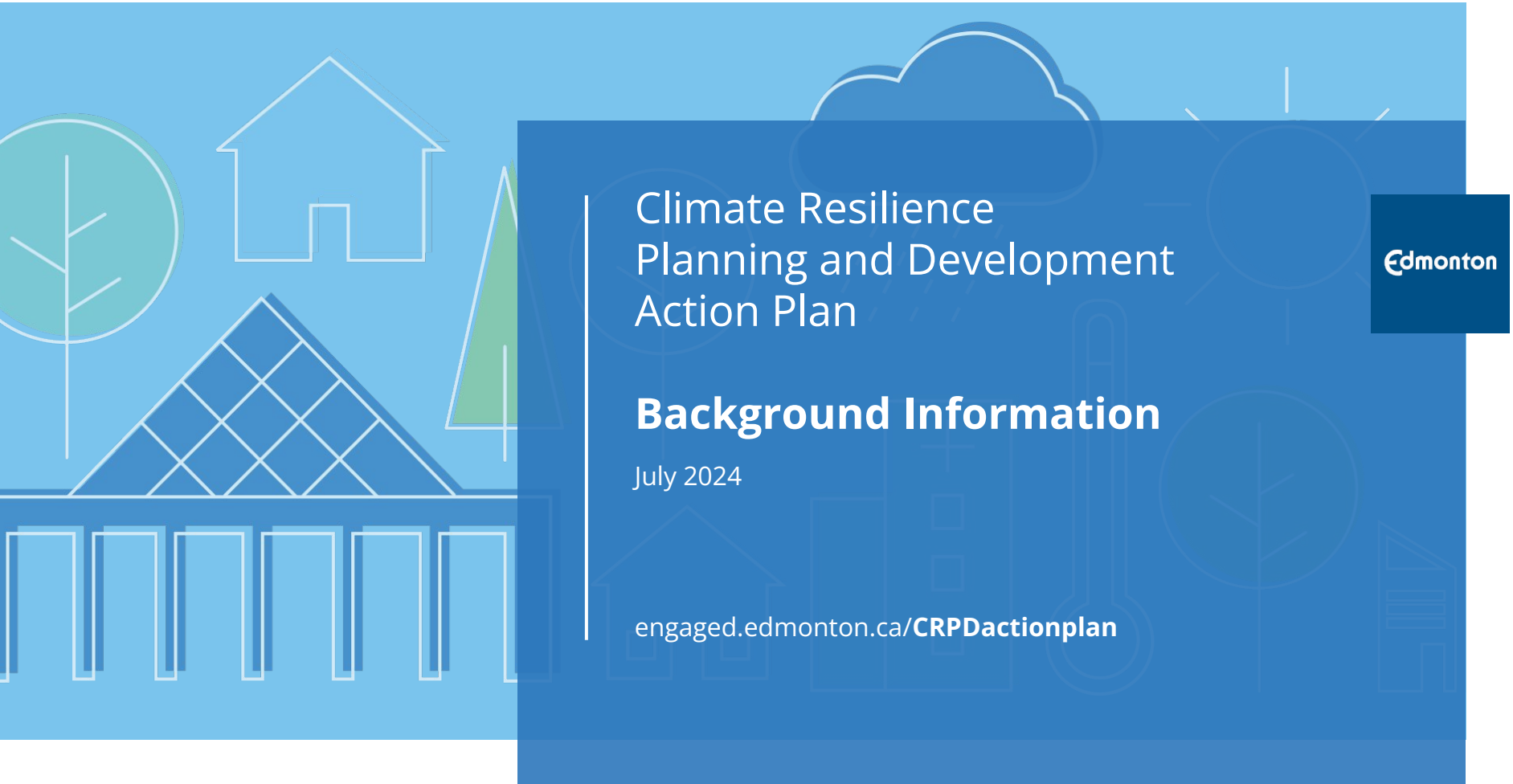


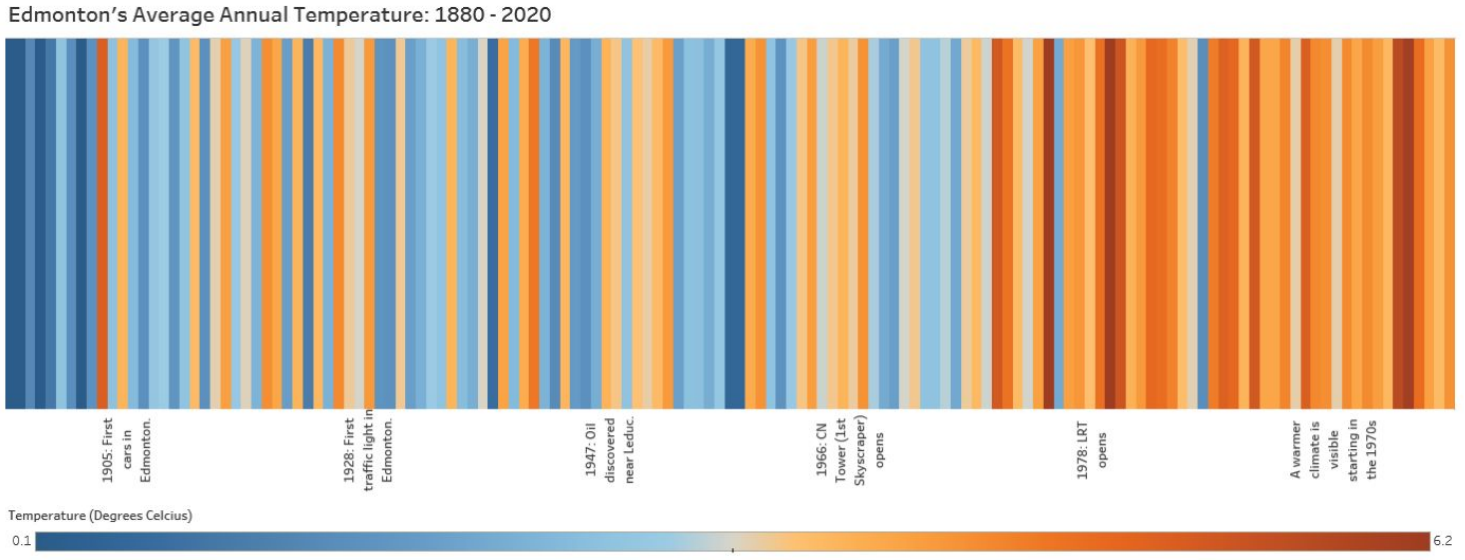
Climate Resilience Planning and Development Action Plan

Background Information

July 2024

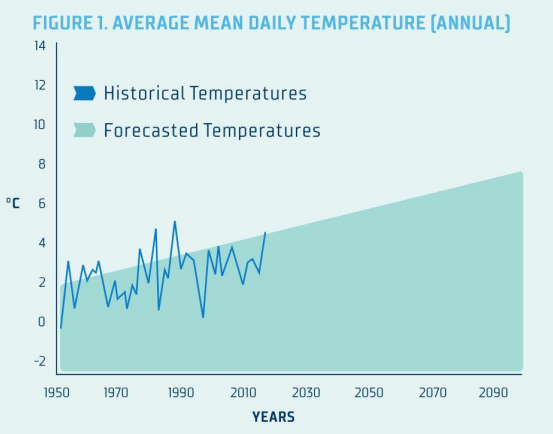
engaged.edmonton.ca/**CRPDactionplan**

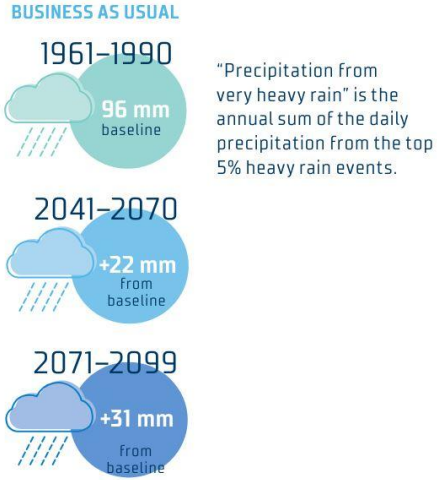
Edmonton's Changing Climate



Edmonton's Changing Climate

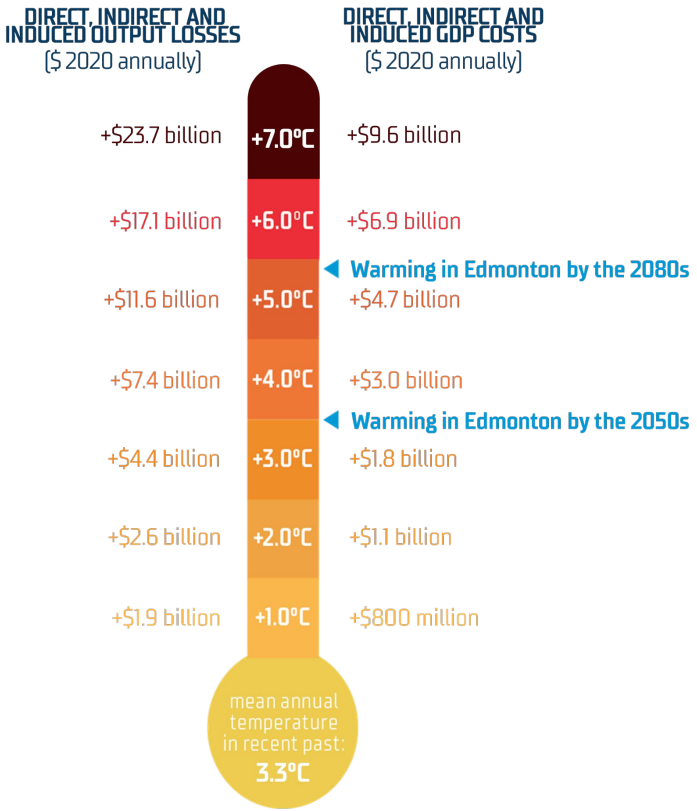
- Temperatures increasing across all seasons
- Precipitation patterns changing
- Weather extremes increasing
- Changing Ecosystems





Information and figures from Climate Resilient Edmonton: Adaptation Strategy and Action Plan (2018)

Social and Financial Impacts



- Climate change could lower Edmonton's GDP by $3.2 billion yearly, and $7.4 billion as early as the 2070s.
- Social and GDP costs increase for every degree of warming.
- An additional **22,000 health incidents/year** are expected to occur by the 2050s.

The Critical Context for Local Climate Action

This is a **critical** decade for climate change. **Local actions** can have wide-ranging positive effects and contribute to increased **Climate Resilience**.

Climate Resilience is the ability to adapt to and mitigate the impacts of climate change.

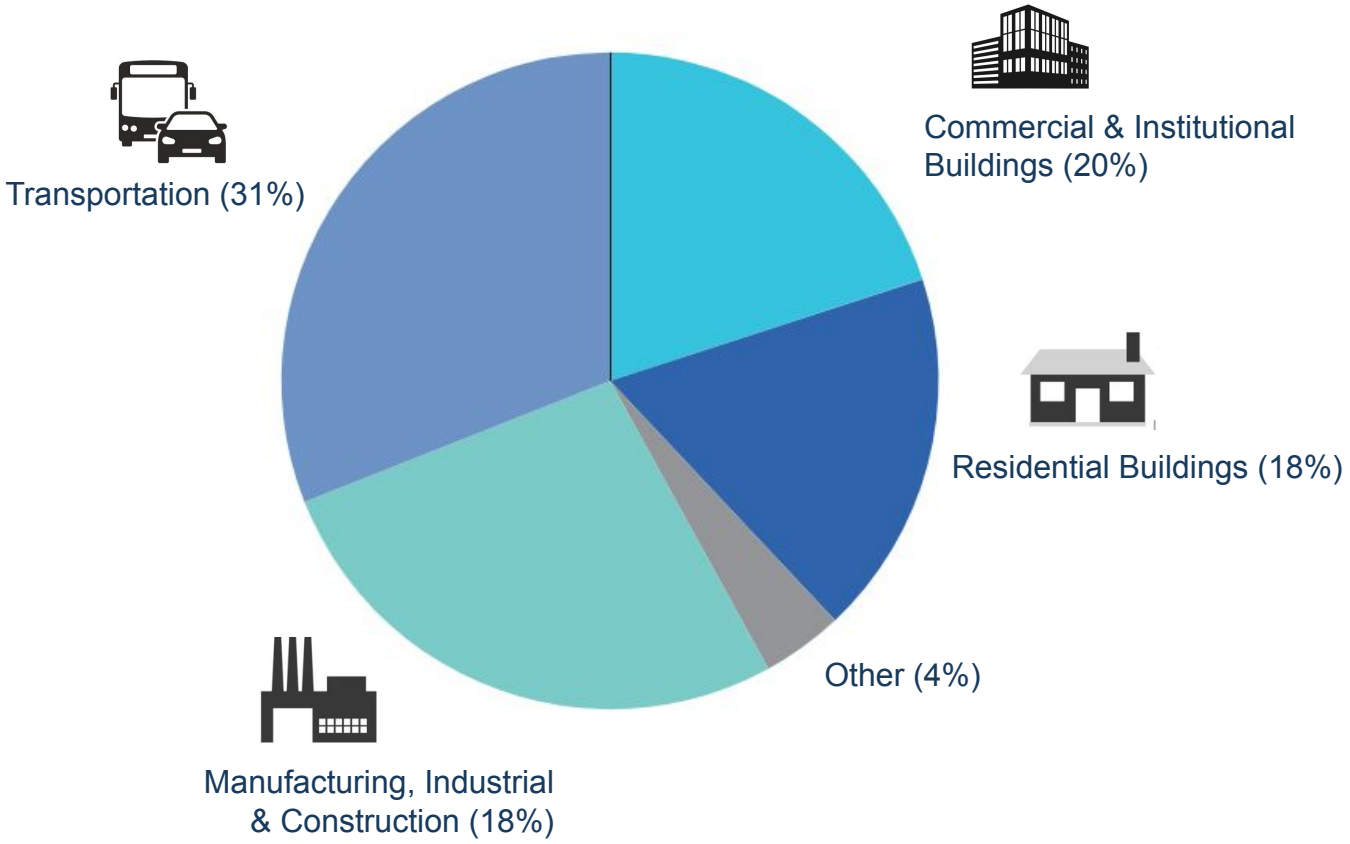
- **Adaptation** means making adjustments to social, economic and environmental practices to reduce vulnerabilities to climate change.
- **Mitigation** involves using new strategies to reduce greenhouse gas emissions.

Together, adaptation and mitigation enable sustainable development and improved well-being in the face of a changing climate.

Decisions made today will set the course for our city's resilience in a changing climate.

Edmonton

Edmonton's Community Greenhouse Gas Emissions



Guiding Policy

Achieve total community-wide carbon budget of 135 megatonnes

2025

- Reduce community-based net greenhouse gas emissions by **35%**

2030

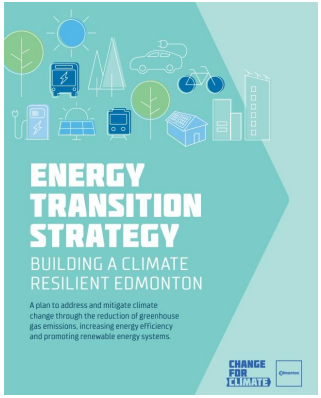
- Reduce community-based net greenhouse gas emissions by **50%**
- Reduce energy consumption by 35% per person
- Generate 10% of Edmonton's electricity locally

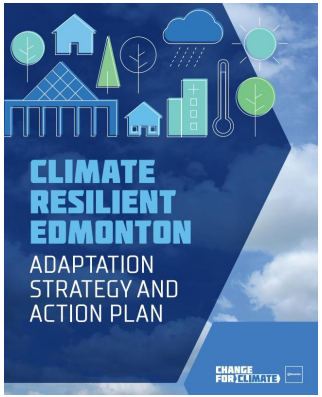
2050

- Achieve **net zero** per person greenhouse gas emissions

Guiding Policy

MITIGATION
action to reduce emissions that cause climate change

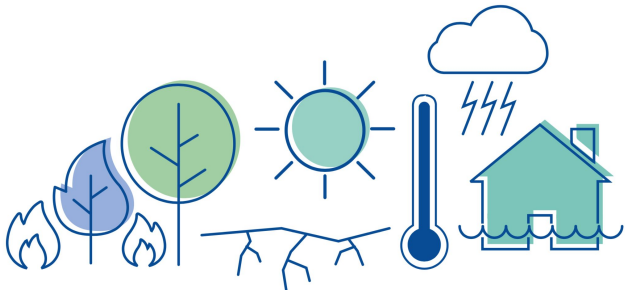




ADAPTATION
action to manage the risks of climate change impacts



CLIMATE CHANGE
IMPACTS EDMONTON



Guiding Policy

Community Energy Transition Strategy and Action Plan

- **Pathway 3:** Low Carbon City and Transportation
- **Goal:** Edmonton is planned, designed and built to be a vibrant carbon neutral city

Climate Resilient Edmonton: Adaptation Strategy and Action Plan

- **Action 4:** The City of Edmonton in partnership with community stakeholders develops and integrates climate adaptation and resilience standards into urban and strategic planning, design, and development approval processes.
- **Goal:** Edmonton is planned, designed, developed and built to be climate resilient today and for future Edmontonians

Climate Resilience Planning and Development Action Plan

Objective: Integrate climate adaptation and mitigation action throughout the City of Edmonton's land use planning and development continuum.

Approach: Outline critical actions that can be implemented in the 2023-2026 budget cycle and lay a strong foundation for ongoing climate resilience building.

Anchored around four themes:

- Resilient City Building Processes
- Resilient Neighbourhoods
- Resilient Site and Landscaping Design
- Resilient Buildings

Planning & Development Continuum



What Have We Done?



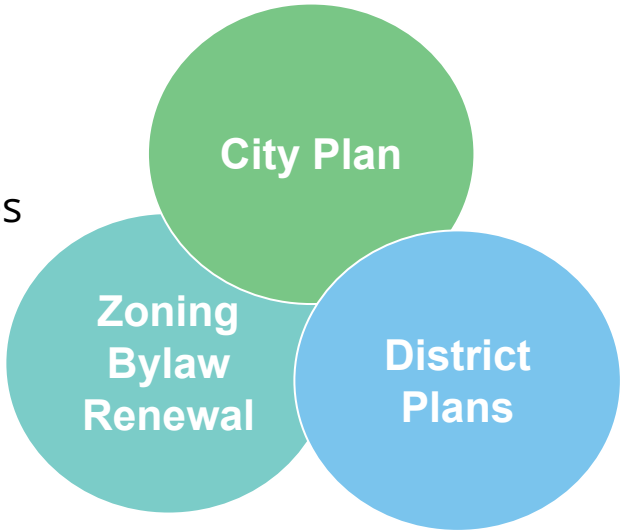
⇦ **Where We Are Now**

Edmonton

Getting to 15 Actions

Actions were developed through a combination of key considerations:

- Stakeholder Feedback
- Council commitments
- Climate Best Practices
- Alignment with Climate Strategies
- Legal Jurisdiction



Climate Resilience Planning and Development Action Plan

Edmonton

Draft Actions

1. Streamline the permitting process for climate resilient development

Develop and implement a coordinated and dedicated Development and Building Permit Review program for buildings that are built beyond the current energy performance Tier set out by the Province.

2. Incorporate EV-ready requirements into the Zoning Bylaw

Prepare EV readiness regulations with consideration for all building forms (e.g. residential, commercial, industrial, institutional and standalone parking facilities) for incorporation into Zoning Bylaw 20001.

3. Incorporate solar-ready requirements into the Zoning Bylaw

Prepare solar readiness regulations with consideration for all building forms (e.g. residential, commercial, industrial and institutional) for incorporation into Zoning Bylaw 20001.

4. Pursue options for resilient landscaping practices on private property

Assess current landscaping programming, processes, and resources to identify:

- Opportunities to increase Zoning Bylaw compliance levels of new residential developments
- Public education, partnerships, capacity building, and other initiatives to increase resilient landscaping on existing residential properties

Assess landscaping regulations and identify opportunities to increase resilient landscaping

5. Update the Floodplain Protection Overlay in the Zoning Bylaw

Update the North Saskatchewan River flood risk mapping for the City of Edmonton to reflect future climate projections.

Update the Floodplain Protection Overlay in Zoning Bylaw 20001 to align regulations with best practices for development within flood risk areas.

6. Introduce new regulations for Wildfire Risk Areas in the Zoning Bylaw

Develop a Wildfire Risk Overlay in Zoning Bylaw 20001 to identify properties in wildfire risk areas and prepare regulations to mitigate the potential negative effects of a wildfire event and ensure the safety of those living in lands that may experience wildfire risks.

Consider FireSmart and wildfire-ready best practices for the Edmonton context to help protect homes, buildings and neighbourhoods from the growing threat of wildfires.

7. Incorporate climate resilient standards into the City's Design and Construction Standards

Conduct comprehensive review of all standards to identify opportunities and provide recommendations to incorporate climate resilient standards.

Develop a roadmap for phased updates to each volume of the Design and Construction standards. It is anticipated that these updates will occur over this budget cycle (2024 to 2026) and the next budget cycle (2027 to 2030).

Update Design and Construction Standards to incorporate climate resilient requirements

8. Expand the scope of the Climate Resilience Policy and Procedures to guide city-wide development.

Incorporate neighbourhood design, infrastructure, public land and parks into Council Policy C627 - Climate Resilience Policy.

Develop additional Administrative Procedures to provide direction on how Administration is expected to activate C627.

9. Incorporate climate resilience into the Terms of Reference that guide new neighbourhood design

Update the Terms of Reference for ASPs and NSPs to align with Council Policy C627 - Climate Resilience Policy.

Include climate resilience criteria in the Terms of Reference for new neighbourhood plans (i.e. ASPs and NSPs), and substantial amendments to existing plans in effect.

Identify and update technical study requirements and policy direction as needed to support the changes in the Terms of Reference.

10. Identify and pursue opportunities to enable development of low-carbon district energy systems

Identify the appropriate policy and regulatory tools to facilitate connection (or readiness to connect) of new construction to District Energy in Opportunity Areas.

Develop guidance for enabling connection to District Energy for the various typologies of Opportunity Areas.

11. Pursue options for preserving natural areas through neighbourhood design

Explore options to consider the preservation of natural areas and natural infrastructure in neighbourhood design and development at the earliest stages of planning work, including future growth areas and non-statutory servicing studies.

Explore additional funding for the Natural Area Reserve fund to purchase additional, high-value natural assets that cannot be retained through existing planning tools.

12. Develop a Climate Risk Index for Edmonton neighbourhoods

Develop a Climate Risk Index to assess and track exposure, vulnerability, risk and resilience to climate change at the neighbourhood scale in Edmonton.

13. Foster awareness of climate resilient development through public education and outreach

Integrate building and neighbourhood resilience measures within the Community Education and Activation Strategy.

Develop resources to educate the public on climate risks and opportunities for action related to development.

Develop education packages on grants and incentives for green development and retrofits.

14. Pursue opportunities to leverage grant funding for climate resilient development

Launch a Low Income Energy Improvement Program

Update current development grant programs to include a climate improvement requirement where equitable and effective.

Explore new opportunities for grant programs that incentivize alignment with higher Tier building and energy codes and/or improve resilience to climate impacts.

15. Build organizational change within Administration through education and collaboration

Add the Climate Planning and Strategy group to circulation processes where feasible and effective:

- Development permits, subdivision applications, rezoning applications, plan amendments
- City development projects (i.e. neighbourhood renewal, open spaces development)
- Policy and guideline development

Establish climate resilient standard operating procedures for planning and development processes to build internal knowledge and capacity.

Develop a “Climate Champions” program with representatives from each work unit to streamline information sharing and foster internal collaboration.

Next Steps

- Current phase of engagement runs from **July 2** to **July 23**
  - engaged.edmonton.ca/crpdactionplan
- What We Heard report will be available in late summer
- Action refinement and scoping
- Supplementary assessments
  - Affordability studies and legal review
- CRPD Action Plan will be presented to the Urban Planning Committee: **October 8, 2024**