THE CITY OF
Red Deer

December 2025

Energy Diversification and Emissions Strategy

EXECUTIVE SUMMARY

The City of Red Deer ("the City") is taking practical steps toward a cleaner, more resilient, and cost-effective future.

This Energy Diversification and Emissions Strategy ("the Strategy") provides a clear, actionable roadmap to diversify energy sources, improve efficiency, and reduce greenhouse gas (GHG) emissions.

Current Emissions and Targets*

Corporate Emissions

156,200 tCO_2e/year
from City-owned buildings, vehicles, and services
(≈48,000 cars driving each year)

Targets

Emissions Reduction	**50% by 2035** below the 2010 baseline
Electricity Source	**25% by 2035** from renewable or alternateive sources

Community Emissions

1.2 million tCO_2e/year
from cars, buildings, and waste across the whole city
(≈372,600 cars driving each year)

Targets

Emissions Reduction	**10% or less** increase above the 2010 baseline
Electricity Source	**25% by 2035** from renewable or alternative sources
Energy Use	Not to exceed a moderate increase to **18.4 M GJ**
Waste Diversion	**50%** non-hazarous waste from landfill

By shifting to a broader mix of local renewables, efficient electrified systems, and optimized operations, the City can better protect residents and taxpayers from rising energy costs and escalating climate risks such as extreme heat, flooding, storms, and wildfire smoke.

Developed collaboratively with City staff and building directly on the 2019 Environmental Master Plan and the 2018 Community Energy and Emissions Plan, the Strategy identifies the highest-impact recommended actions the City can take to reduce energy use and emissions across municipal operations and support reductions in Red Deer and surrounding communities.

**Targets established in the 2019 Environmental Master Plan (EMP)*

A focused set of **44 prioritized, ready-to-implement actions** grouped into:

How will we pay for the actions?

- Prioritized allocations from capital and operational programs (reserve or rate funded) to deliver most cost beneficial programs.
- External grants and low carbon funding can cover 30-70% of costs (see Appendix C).
- Homeowner-specific tools make actions more attainable for residents.
- Strategic use of tax dollars to leverage private investment and grant opportunities.

Actions and Outcomes of the Strategy

City organizational actions

Actions the City can lead directly (e.g., landfill gas capture, building retrofits, fleet optimization, and wastewater upgrades).

Community initiatives

Initiatives the City enables through policy, partnerships, and programs (e.g., programs to engage the citizens of Red Deer to improve the energy efficiency of their homes, deep retrofit incentives for institutional and commercial building owners, better transit and trails, or improving the health of urban forests).

Red Deer can expect the following outcomes if actions are fully implemented by 2036:

- Substantial energy savings and emissions reductions across both City operations and the broader community, driven by landfill gas capture, building and fleet electrification, deep retrofits, renewable energy adoption, compact development, and modeshift programs.
- Millions of dollars in annual energy savings and avoided climate damage costs.
- Hundreds of local green jobs and new economic opportunities.

The Strategy builds on progress already made to diversify energy sources and improve efficiency.

The document shares guidance on best practices for moving into implementation of the actions.

Moving Into Implementation

Strong governance

Update bylaws, establish a new Energy Steering Committee, and identify department champions.

Build buy-in

Complete staff training, internal communications, and public "Red Deer Powers Down" campaign.

Embed in everyday processes

Update procurement processes, capital planning, bylaws, and budgeting approaches to integrate actions.

Strategic partnerships

Build relationships and collaborate with community groups, utilities, businesses, neighbouring municipalities, and Indigenous communities.

Together we can power a stronger, cleaner Red Deer.

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GLOSSARY

Term	Definition
Community Energy and Emissions Plan (CEEP)	A plan that establishes an energy use and GHG emissions inventory, identifies potential emissions targets, and proposes policies and actions at a high level for the community.
Corporate Emissions	Emissions associated with municipal operations and services, such as facilities, fleet, landfill, and wastewater treatment managed by the City of Red Deer.
Community Emissions	Emissions associated with non-municipal activities across residential, commercial, industrial, agricultural, and other sectors in Red Deer.
Energy Diversification and Emissions Strategy	A roadmap to advance energy diversification, enhance energy efficiency, and reduce GHG emissions in Red Deer, building on existing plans like the EMP and CEEP.
Environmental Master Plan (EMP)	A plan that outlines priorities for environmental stewardship, including the development of a renewable energy strategy and implementation of the CEEP.
Greenhouse Gas (GHG)	Gases that trap heat in the atmosphere, contributing to climate change, such as carbon dioxide, methane, and nitrous oxide.
Tonnes of carbon dioxide equivalent (tCO_2e)	A standard unit for measuring the contribution of different greenhouse gases, expressed in terms of the amount of CO_2 that would create the same amount of warming.

1 - INTRODUCTION

Faced with growing complexity and challenges, the City of Red Deer ("the City") has developed this Energy Diversification and Emissions Strategy ("the Strategy") to support sustainable service delivery and cost management, while also demonstrating environmental responsibility.

Strategic planning for energy diversification and emissions reduction is essential for safeguarding community wellbeing, environmental health, and long-term prosperity. By investing in renewable technologies and efficiency measures, the City can deliver multiple benefits to residents, businesses, and visitors including:

- **Resilience and Reliability**
  Reduces dependence on any single energy sources, improving energy security and resilience to disruptions or price volatility.
- **Environmental and Health Benefits**
  Lowering emissions improves air quality, supports public health outcomes, and reduces Red Deer's contribution to climate change.
- **Economic Opportunity**
  Investing in clean energy and efficiency can attract green industries, create jobs, and reduce long-term operational costs for municipal infrastructure.

This report is primarily for City decision-makers, staff, and departments to inform policy, budgeting, and operations. It also serves community partners, residents, businesses, and external stakeholders who will collaborate on implementation or who are interested in what the City is doing to diversify energy use, find savings, and reduce emissions.

1.1 Background and Approach

The strategy leverages work previously completed by the City to plan for energy diversification and emissions reductions (see **Section 2** for more information). Despite the progress already made, more actions are needed for Red Deer to meet its targets (**Section 3**).

The Strategy addresses these gaps by:

- Describing baseline corporate emissions and energy use (associated with municipal operations and services) and community emissions (associated with non-municipal activities).
- Compiling actions the City can take to diversify Red Deer's energy sources and improve efficiency, leveraging the initiatives documented in existing plans as well as emerging opportunities.
- Developing implementation details to support City staff in delivering these important projects across different service lines, as well as by supporting the community at large.

As shown in **Figure 1-1**, the approach to developing this strategy is grounded in collaboration and evidence-based decision-making.

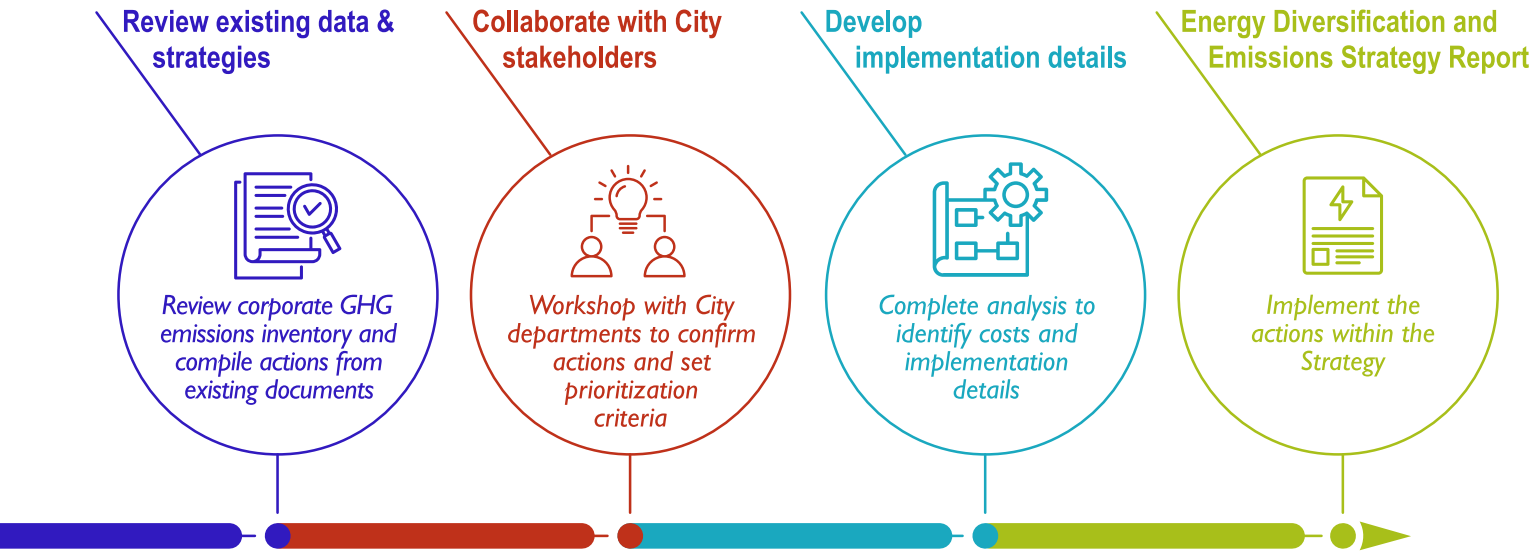
1.2 Purpose

The purpose of the Strategy is to provide clear, actionable guidance for improving energy efficiency, increasing renewable energy capacity and reducing greenhouse gas emissions (GHG) in Red Deer. It aims to:

- Engage City subject matter experts in shaping and delivering energy solutions.
- Identify energy diversification and emissions reductions opportunities that can be done within the City's capacity and in alignment with municipal goals.
- Increase the adoption of renewable energy and energy efficiency initiatives.

The strategy helps align municipal operations, infrastructure investments, and community programs with Red Deer's long-term sustainability goals.

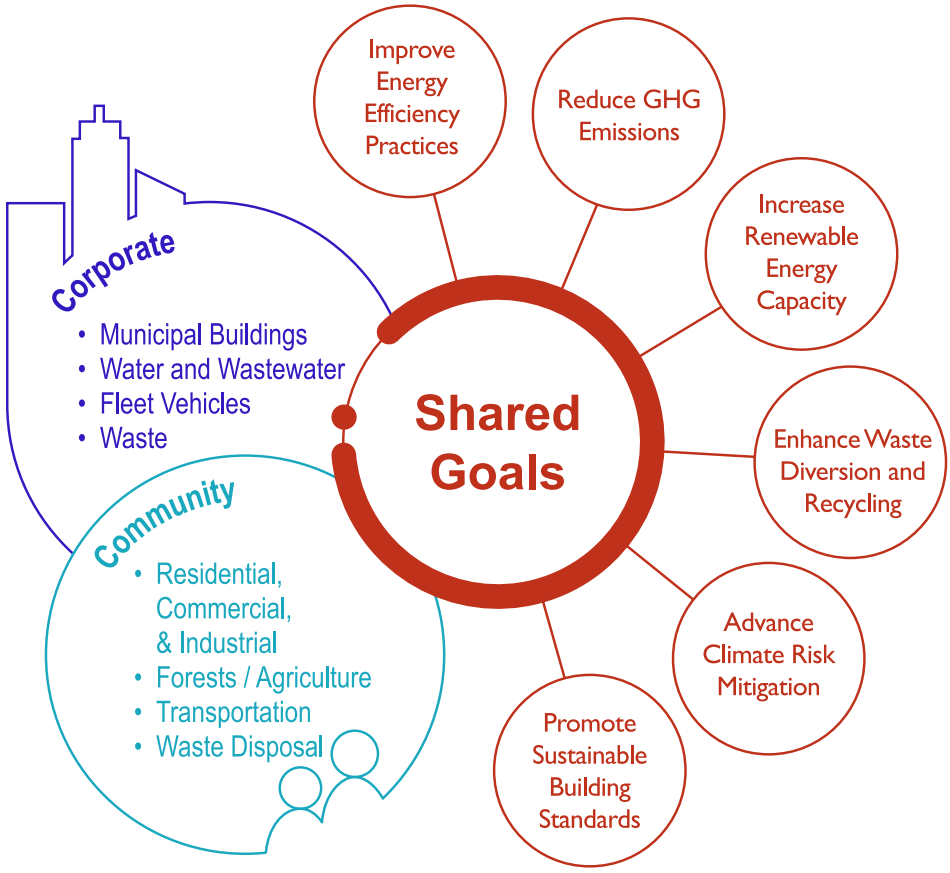
Figure 1-1 Approach to Developing the Energy Diversification and Emissions Strategy



1.3 Scope

This strategy addresses both corporate and community energy use and emissions reductions. As shown in **Figure 1-2**, corporate and community contexts have distinct components that contribute to the emissions. However, while these are distinct emissions scopes the actions we can take to improve energy efficiency and reduce emissions offer benefits in both categories and help make progress on shared goals.

Figure 1-2 Overview of Corporate and Community Energy Use and Emission Generation



Data from 2024 was used to generate baseline emission inventories, with the Strategy actions planned for 2026-2036. Action implementation detail tables (**Appendix A**) are provided for each major energy and emissions theme to support uptake and ease of adoption. The tables include a description of the actions to be taken, modelled outcomes recommended timelines, and high-level costs. **Appendix B** shares the methodology for selecting the included actions and developing the table details.

The boundaries of the strategy are:

- Actions the City can take.
- Consideration of electricity, natural gas, and fuel use across different sectors.
- Preliminary implementation details that can be used for more detailed planning.
- High level cost estimates for each action.
- Actions where the City is not the entity responsible for implementation.
- Development of a strategy to achieve a specific reductions target by a certain year.
- Evaluation or procurement of specific technologies or systems.

Principles and approaches that the City can leverage to increase the success of implementation activities are also included (see **Section 5**).

2 - STRATEGIC ALIGNMENT

The Strategy is aligned with the City's broader goals and priorities. It builds on a foundation of existing plans, policies, and community aspirations, so that actions are not standalone efforts but part of a coordinated approach to environmental stewardship, infrastructure planning, and community wellbeing.

As shown in **Figure 2-1**, the Strategy aligns with existing municipal plans. Some of the key connections include:

- **City Council's 2023-2026 Strategic Plan:** aligns particularly with the Thriving City goal by fostering environmental commitment, proactive infrastructure management, and economic resilience.
- **Environmental Master Plan (EMP) (2019):** calls for the development of a renewable energy strategy (EMP Action 8) and implementation of the Community Energy and Emissions Plan (CEEP) (2018) (EMP Action 19). This Strategy supports both EMP priorities by refining and prioritizing actions from the CEEP and integrating current opportunities in renewable energy and efficiency.
- **Community Energy and Emissions Plan (2018):** establishes an energy use and GHG emissions inventory, identifies potential emissions targets (see **Section 3**), and proposes potential policies and actions which can help the City reach its targets.

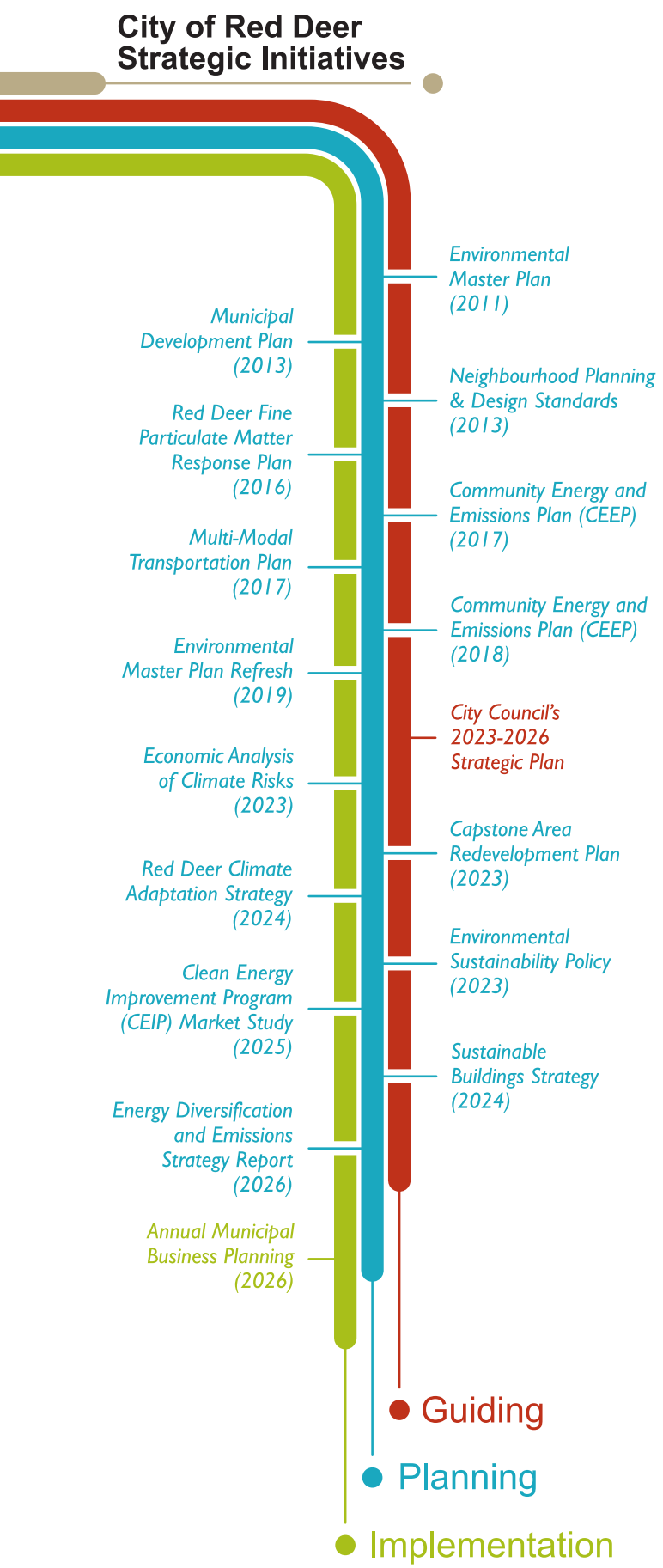


Figure 2-1 Strategic Alignment with Existing Municipal Plans

The Strategy combines the initiatives identified in the CEEP with emerging trends and opportunities (e.g., other plans and documents listed in **Figure 2-1**) to create an up-to-date list of actions. Each action includes sufficient detail for the responsible City department to use the tables for further, more detailed business planning. The actions have been grouped to make the integration into business planning processes streamlined.

By building on these existing plans and priorities, this Strategy helps deliver a future that is environmentally responsible, economically beneficial, and strategically integrated across departments and initiatives. This alignment strengthens the case for investment, supports collaboration between the City and community initiatives, and positions Red Deer as a leader in municipal climate action.

3 - RED DEER'S CURRENT EMISSIONS & TARGETS

3.1 Overview and Targets

This section outlines Red Deer's current GHG emissions profile (2024 data), providing a foundation for the energy and emissions reduction actions discussed in Section 4.

The inventories distinguish between corporate energy and emissions (from City-owned operations, such as facilities, fleet, landfill, and wastewater treatment) and community energy and emissions (from broader activities like residential and commercial buildings, transportation, waste, and agriculture).

2024 Emissions Overview

Corporate Emissions

156,200 tCO_2e/year
from City-owned buildings, vehicles, and services
(≈48,000 cars driving each year)

Community Emissions

1.2 million tCO_2e/year
from cars, buildings, and waste across the whole city
(≈372,600 cars driving each year)

The City set renewable energy and emissions reduction targets in the 2019 EMP.
The targets relevant to this Strategy are:

Corporate Targets

Emissions Reduction	**50% by 2035** below the 2010 baseline
Electricity Source	**25% by 2035** from renewable or alternative sources

Community Targets

Emissions Reduction	**10% or less** increase above the 2010 baseline
Electricity Source	**25% by 2035** from renewable or alternative sources
Energy Use	Not to exceed a moderate increase to **18.4 M GJ**
Waste Diversion	**50%** non-hazarous waste from landfill

We are already making progress towards these targets. Some of the successes that contribute to achieving our goals include:

- Lighting retrofits of municipal buildings and parking lots
- "Idle Free" Policy for corporate vehicles
- Invasive pest monitoring and management program (e.g., Dutch Elm Disease)
- City Energy Manager to support projects
- Thermostat rebate program for residents
- Trails and active transportation plans have been developed

3.2 Corporate Emissions

Red Deer's total corporate emissions were approximately 156,200 tCO_2e in 2024.

This is equivalent to the annual greenhouse gas emissions from approximately **48,000 average passenger vehicles** in Canada. Emissions were derived from operations including the Waste Management Facility landfill, wastewater treatment plant, vehicle fleet, and facility energy use.

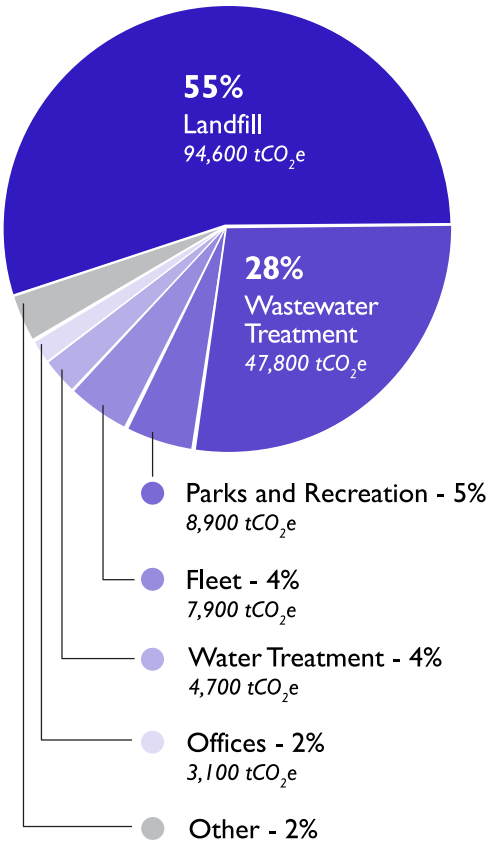
Although parks and recreation and wastewater treatment consume the most energy within corporate operations, they are not the largest sources of greenhouse gas emissions. The Waste Management Facility (landfill methane) accounts for the majority of corporate GHG emissions despite using relatively modest amounts of electricity and natural gas. This contrast underscores the value of targeted interventions in waste management, where even small capital or operational changes can yield disproportionately large emissions reductions.

These sources reflect opportunities for the City to lead by example through direct investments in efficiency, electrification, and waste-to-energy technologies.

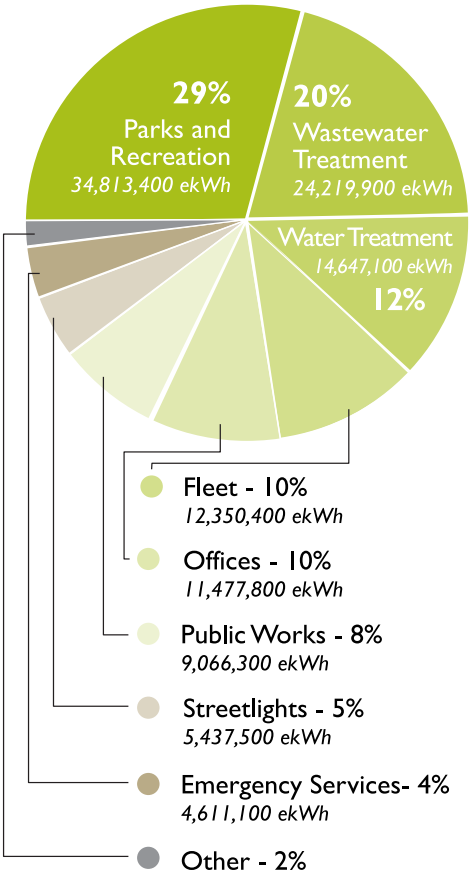
The landfill and wastewater treatment operations represent over **80% of corporate emissions,** making them critical focus areas.

Prioritizing upgrades here could deliver **substantial reductions and cost savings.**

2024 Corporate Emissions Profile (tCO_2e)



2024 Corporate Energy Use (ekWh)



3.3 Community Emissions

The 2024 community GHG inventory estimates total emissions at 1.2 million tCO_2e, encompassing activities across residential, commercial, industrial, and agricultural sectors.

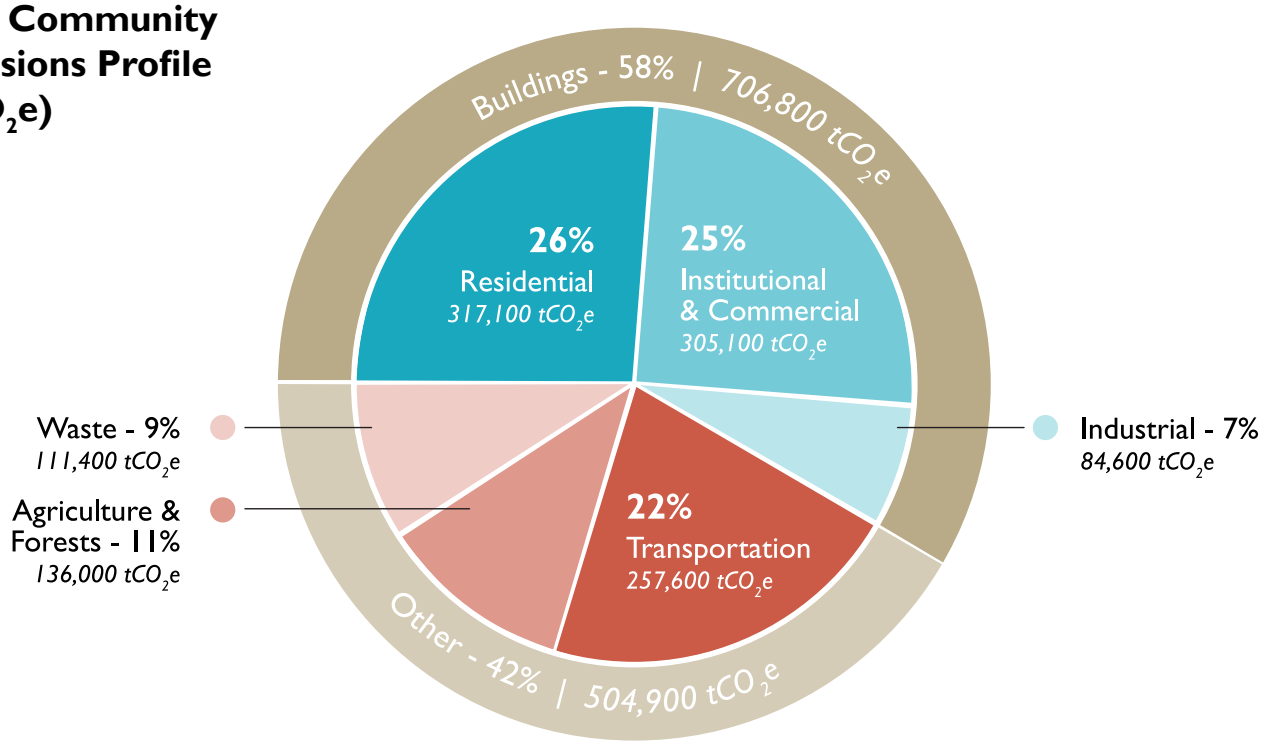
This is equivalent to the annual greenhouse gas emissions from approximately **372,000 average passenger vehicles** in Canada.

Building energy use (electricity and natural gas for heating, cooling, and power) and transportation (gasoline and diesel for personal and commercial vehicles) dominate the profile, reflecting typical patterns of urban growth, commuting distance, and space-heating demand in a cold climate.

Waste, agriculture, and forestry contribute the smallest shares (agriculture accounts for emissions from livestock and food production, while forestry reflects soil emissions offset by forest absorption as a net sink).

This distribution is consistent with the emissions profiles of most Canadian municipalities of similar size and region.

2024 Community Emissions Profile (tCO_2e)



Building energy use (Residential, Commercial/Institutional and Industrial) and **Transportation** account for **~80% of community emissions.**

Reducing these sources will depend on **accelerating retrofits** and **expanding multi-modal transportation choices,** both of which require ongoing **collaboration and engagement with residents, businesses, and regional partners.**

4 - EMISSION REDUCTION INITIATIVES

Building on the emissions profile and targets outlined in Section 3, this section presents a prioritized set of emission reduction initiatives that are practical and achievable.

The initiatives are divided into two main categories that reflect the City's different roles: **organizational actions** the City can implement and fund directly within its own operations, and **community initiatives** where the City enables or influences broader reductions through policy, partnerships, and programs.

The different initiative types can be understood as:

- **City organizational actions**
  Actions the City can lead and fund directly because they fall within municipal operations. These represent opportunities for the City to "lead by example," deliver measurable reductions quickly, and achieve cost savings through efficiency and optimization.
- **Community initiatives**
  Actions that primarily influence community-wide emissions. Here the City acts as an enabler, partner, and policy leader rather than the sole implementer. These initiatives often require collaboration with residents, businesses, developers, utilities, and neighbouring municipalities.

Encouraging behavioral change (e.g., turn down the thermostat) can deliver significant benefits. This document highlights concrete actions, including those that support meaningful behavior shifts.

Each subsection follows a consistent, easy-to-use structure:

Responsible parties
Identifies the lead City department(s) and key collaborators.

Service description
Brief overview of the activity or system that generates emissions.

How can we reduce emissions?
Summary of the main levers available (policy, engagement, programs, and capital/optimization).

Prioritized actions
A concise list of recommended actions (cross-referenced to the detailed implementation tables in **Appendix A**).

Recommended implementation timeline and outcomes table
Groups actions by recommended implementation window, based on ease of execution and potential impact, assuming staff and financial resources are available. Recommend timing is based on the prioritization scoring completed for each action. Also shows key outcomes such as estimated GHG reduction potential (tCO_2e/yr), high-level capital/operating cost ranges, and primary co-benefits.

Building on existing City plans, like the CEEP and the EMP, an updated action plan was developed. About half of all actions are new, developed to fill gaps identified in consultation with City staff. Existing actions were kept, updated, or removed depending on current feasibility. Actions were prioritized using a set of criteria developed to capture both the direct costs and benefits, as well as the more indirect co-benefits of the actions (see **Appendix B**). Each action includes implementation details: scope, modelled outcomes, timelines, and cost estimates. **Appendix C** lists potential funding sources.

Many City organizational actions can be advanced immediately because they are fully within the City's control and often deliver the fastest payback and early GHG reductions. At the same time, several community initiatives are ready for near-term rollout and can proceed in parallel as partnerships and funding are secured. Together, these complementary corporate and community actions form a realistic pathway to close the gap between Red Deer's current trajectory and its ambitious targets.

4.1 City Organizational Actions

Buildings

Responsible parties

Facilities Management staff, with collaboration from Community Development, Parks & Public Works, Transit & Fleet, Emergency Services, and Utilities.

Service description

The City owns and operates a large portfolio of buildings that deliver municipal services, including recreation centres, arenas, fire halls, offices, and public works facilities. These buildings generate greenhouse gas emissions primarily through natural gas combustion for space and water heating, and electricity use for lighting, HVAC systems, and equipment.

How can we reduce buildings energy and emissions?

The numbers after each **action** (e.g., **#5**, **#6**) refer to the action IDs in the detailed implementation table in **Appendix A**.

Prioritized Actions

Policy

- Define operational energy-efficiency standards for all City-owned buildings (**#1**).
- Explore corporate policy for energy-efficiency standards in new City-owned buildings (**#2**).
- Adopt an electrification-at-replacement policy for heat pumps/hybrid systems at end-of-life (**#8**).
- Implement an after-hours plug-load governance policy to cut power to idle equipment (**#9**).

Engagement

- Develop programs to engage residents on high-impact actions (insulation, envelopes, furnace/HVAC upgrades) (**#3**).
- Encourage energy-efficient new buildings and retrofits on private property by reducing financial barriers (**#11**).
- Create an education campaign surrounding consumer options for high efficiency home building (**#12**).

Programs

- Establish a photovoltaic and battery readiness program to identify priority sites for solar and storage (**#6**).
- Include social, cultural, economic and environmental criteria in RFPs for City-led commercial/multi-family projects (**#10**).
- Create a waste heat recovery screening program to match heat sources with nearby loads (**#13**).

Capital / Optimization

- Create a targeted envelope upgrades program to fix common weak points during routine maintenance (**#4**).
- Implement an HVAC control optimization and fault-detection program for buildings with building maintenance systems (**#7**).
- Establish a lighting controls optimization program where LEDs are installed/planned (**#10**).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-1 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Short-Term (2026-2028) Implementation Window		Assumptions
1	Define energy efficiency operational standards for City-owned buildings.	Results in 100% of City buildings achieving 10% energy reduction.
2	Explore establishment of a corporate policy to define energy efficiency standards for City-owned buildings, as directed in the Sustainable Buildings Strategy.	Results in 100% of new and existing City buildings achieving 40% energy reduction.
3	Develop programs to engage Red Deer's citizens in the highest-impact home energy upgrades, such as roof and attic insulation, building envelope improvements, and high-efficiency furnace and heating, ventilation and air conditioning replacements, using Clean Energy Improvement Program (CEIP) style property-tax-based financing to reduce upfront costs and encourage deeper retrofits.	Results in 2.5% increase residential energy efficiency.
4	Create a targeted envelope upgrades program to fix common envelope weak points (doors, dock seals, vestibules, hatches, curtainwall gaskets) during routine maintenance.	Results in a 1% energy reduction in City facilities.
Mid-Term (2029-2031) Implementation Window		**Assumptions**
5	Establish a lighting controls optimization program to assess and upgrade lighting controls (occupancy/daylight, zoning, scheduling) where LEDs exist or are planned and integrate with building management systems where present.	Results in a 2% energy reduction in City facilities.
6	Establish a photovoltaic and battery siting & readiness program to identify priority roofs/yards for solar and short-duration batteries.	Results in 4% of energy use in City facilities being offset by solar photovoltaic energy.
7	Establish a heating, ventilation and air conditioning (HVAC) control optimization & fault detection and diagnostics program which rolls out standards-based control tuning and analytics packages (demand-controlled ventilation/carbon dioxide control, resets, optimal start/stop, fault detection) for sites with existing building management systems.	Results in a 4% energy reduction in City facilities.
8	Adopt an electrification-at-replacement policy to consider heat pumps or hybrid solutions at end-of-life replacements at City facilities.	Results in a 3% energy reduction in City facilities.
Long-Term (2032-2035) Implementation Window		**Assumptions**
9	Implement an after-hours plug & small-load governance policy to cut baseload from plug-in appliances and equipment in off-peak hours or when not in use.	Results in a 1% energy reduction in City facilities.
10	In City developments for which there is a Request for Proposal, implement a process wherein social, cultural, economic and environmental criteria are considered.	5% of new residential and industrial, commercial and institutional (ICI) development is 15% more efficient.
11	Encourage energy efficient new buildings and retrofits on privately owned property by reducing financial barriers, including for lower-income households.	Results in 10% of new residential construction achieving 25% efficiency.
12	Create an education campaign surrounding consumer options for high efficiency home building.	10% of new residential construction is 40% more efficient.
13	Create a waste heat recovery screening program to identify recoverable heat sources (ice plants, server/IT rooms, mechanical rooms) and match to nearby domestic hot water/space heating/preheating loads.	Results in a 2% energy reduction in City facilities.

Fleet

Responsible parties

Transit & Fleet (lead), with support from Emergency Services, and Parks & Public Works.

Service description

The City operates a fleet of light-duty vehicles, heavy trucks, off-road equipment, and emergency response vehicles. Fleet emissions come from gasoline and diesel use. Fleet is one of the largest sources of corporate GHG emissions that is directly within the City's control.

How can we reduce fleet energy and emissions?

The numbers after each action refer to the action IDs in the detailed implementation table in **Appendix A**.

Prioritized Actions

Programs

- Create a right-sizing and vehicle pooling program for City staff by analyzing utilization and establishing a shared pool (**#15**).

Capital / Optimization

- Implement a tire pressure and alignment program with routine checks and schedules **(#14)**.
- Develop a route optimization program using GPS/ telematics for snow removal routes (**#16**).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-2 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Short-Term (2026-2028) Implementation Window		Assumptions
14	Implement a tire pressure and alignment program which includes routine tire pressure checks and alignment schedules.	Results in 2% reduction in annual corporate Fleet fuel use.
Mid-Term (2029-2031) Implementation Window		**Assumptions**
15	Create a right-sizing and vehicle pooling program for City staff by analyzing vehicle utilization, retiring or replacing underused or oversized units, and establishing a shared vehicle pool to increase vehicle utilization.	Results in 4% reduction in annual corporate Fleet fuel use from fewer and/or downsized vehicles.
16	Expand installation of GPS/automatic vehicle location systems across corporate fleet units and develop operator feedback dashboards to support more efficient driving and routing practices.	Results in a 3% reduction in annual corporate fleet fuel use and vehicle kilometers traveled (VKT) through improved operator behaviour and real-time performance feedback.

Water and Wastewater

Responsible parties
Water and Wastewater Operations Utilities.

Service description
The City treats all drinking water and wastewater for Red Deer residents and operates the associated pumping stations, treatment plants, and lift stations. Emissions are produced by electricity used for pumping and treatment processes, natural gas for heating buildings and boilers, and methane and nitrous oxide released during wastewater treatment and sludge handling.

How can we reduce water and wastewater energy and emissions?
The numbers after each action refer to the action IDs in the detailed implementation table in Appendix A.

Prioritized Actions

Programs

- Explore process heat recovery in the wastewater treatment plant to use effluent/process waste heat (#20).

Capital / Optimization

- Develop a pump optimization program to install VFDs, right-sized pumps, reduce short-cycling) (#17).
- Modernize aeration controls with ammonia dissolved oxygen (DO) analyzers, dissolved oxygen trim control, and blower variable frequency drives (VFDs) (#21).
- Install high-efficiency blowers at wastewater treatment plants (#18).
- Implement high-efficiency wastewater treatment plant digester systems (#19).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-3 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Short-Term (2026-2028) Implementation Window		Assumptions
17	Develop a pump optimization program for the water and wastewater treatment plants to reduce short-cycling, install or retune variable frequency drives, and right-size impellers and pumps.	Results in 10% reduction in energy used for pumping in water and wastewater treatment plants.
Mid-Term (2029-2031) Implementation Window		**Assumptions**
18	Install high-efficiency blowers at wastewater treatment plants.	Results in 15% reduction in wastewater blower energy use.
Long-Term (2032-2035) Implementation Window		**Assumptions**
19	Implement higher-efficiency wastewater treatment plant digester systems and corresponding equipment (e.g., mixing, heating, gas handling, and auxiliary drives) as part of planned upgrades and upgrades during asset renewal.	Results in a 10% reduction in WWTP process electricity for digestion compared to business-as-usual equipment replacement by 2030.
20	Explore process heat recovery in the wastewater treatments plant to make use of effluent or process waste heat.	Results in 10% reduction in energy used for space heating in wastewater treatment plant.
21	Modernize aeration controls by installing sensors that continuously measure ammonia and oxygen levels in the tanks, using automated controls to fine-tune oxygen targets, upgrading or retuning adjustable-speed blower drives, and regularly reviewing performance data.	Results in 15% reduction in wastewater aeration energy use.

Waste

Responsible parties
Waste Management Utilities.

Service description
The City owns and operates the Waste Management Facility, including the active landfill and the closed 1972 landfill. The majority of corporate emissions in this category come from methane generated as organic waste decomposes in the landfill, making waste the single largest source of the City's corporate greenhouse gas emissions.

How can we reduce waste energy and emissions?
The numbers after each action refer to the action IDs in the detailed implementation table in **Appendix A**.

Prioritized Actions

Policy
- Create policy to continue diverting solid waste from landfills (e.g., differential tipping fees, disposal bans on divertible materials) (**#22**).

Programs
- Expand the circular economy hub for repair/reuse of electronics and appliances, including community workshops (**#23**).

Capital / Optimization
- Continue to implement landfill gas collection efficiency optimization program, with improvements to wellfield tuning, flare/compressor reliability fixes, and improved cover/condensate management. (**#24**).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-4 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Short-Term (2026-2028) Implementation Window		Assumptions
22	Create policy to reduce waste to landfill, for example differential tipping fees leading to disposal bans of divertible materials.	Results in 5% increased waste diversion.
Mid-Term (2029-2031) Implementation Window		**Assumptions**
23	Expand circular economy hub for repair/reuse of electronics and appliances, with community workshops.	8% reduction in e-waste to landfill via reuse; complements WMMP organics expansion.
Long-Term (2032-2035) Implementation Window		**Assumptions**
24	Implement Landfill Gas collection efficiency optimization program, including wellfield tuning, flare/compressor reliability fixes, and improved cover/condensate management.	Results in a 15% improvement in landfill gas captured.

4.2 Community Initiatives

Energy

Responsible parties

The City (lead partner), with Fortis Alberta, ATCO Gas, energy retailers, and major industrial/commercial users.

Service description

Energy refers to all electricity and natural gas consumed within Red Deer by homes, businesses, institutions, and industry. In 2024 these sources produced the majority of community-wide GHG emissions, driven largely by natural gas heating in Alberta's cold climate and electricity used for lighting, appliances, and equipment.

How can we reduce energy emissions?

The numbers after each action refer to the action IDs in the detailed implementation table in **Appendix A**.

Prioritized Actions

Engagement

- Organize renewable energy group purchases like bulk buying of heat pumps, solar panels, solar hot water, or ground-source systems for residents and businesses (**#26**).

Programs

- Build internal City capacity to support citizen and business micro-generation and encourage renewable energy development (**#25**).
- Pilot community battery storage and demand-response programs tied to renewables (**#27**).

Capital / Optimization

- Build internal capacity and structure at the City to implement an energy optimization strategy which identifies highest-return opportunities for the community (**#28**).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-5 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Short-Term (2026-2028) Implementation Window		Assumptions
25	Develop and build internal capacity to create and implement an energy optimization strategy for Red Deer to learn what are the contextually appropriate, best return on investment options for Red Deer, for example investigating community scale renewable energy projects, community owned/municipal renewable energy utility, grid optimization, energy efficiency, etc.	Results in 2.5% fuel switch to renewables.
Mid-Term (2029-2031) Implementation Window		**Assumptions**
26	Organize renewable energy group purchases: bulk buying of renewable energy systems (e.g., heat pumps, solar PV panels, solar thermal panels, ground-source heat pumps) for building owners.	Results in 2.5% fuel switch to renewables.
27	Pilot community battery storage and demand-response programs tied to renewables.	5% peak load shifted to off-peak/ renewables, reducing grid reliance; supports Energy Diversification Strategy.
Long-Term (2032-2035) Implementation Window		**Assumptions**
28	Build internal capacity and structure at City of Red Deer to support emerging citizen/ business micro-generation needs and allow The City to encourage development of renewable energy sources.	Results in 2.5% fuel switch to renewables

Happy and Healthy Communities

Responsible parties

City Planning & Growth (lead), with support from Land & Economic Development, Parks & Public Works, and community developers.

Service description

This category addresses land-use patterns that influence travel distance and building energy performance. The City can lower per-capita emissions by focusing on efficient neighbourhoods, supporting improved building design, and increased use of renewable or shared energy systems.

How can we reduce community energy and emissions?

The numbers after each action refer to the action IDs in the detailed implementation table in **Appendix A**.

Prioritized Actions

Policy

- Encourage neighbourhoods that integrate land use and transportation, with homes near transit routes and services (transit oriented development) (**#30**).
- Explore establishing redevelopment guidelines and policies in line with Neighbourhood Planning & Design Standards (NPDS) to encourage neighbourhoods where residents can live, work, play, and learn (**#31**).
- Create green infrastructure standards for new/ redeveloped neighborhoods (**#32**).

Engagement

- Start a voluntary benchmarking and public recognition challenge for large ICI buildings, offering awards, fee rebates, and permit fast-tracking for top energy performers and deep retrofits (**#33**).
- Provide midstream lighting, residential heating, ventilation, and air conditioning incentives through distributors which provide rebates for wholesalers (**#35**).

Programs

- Start a schools and community hubs deep-retrofit accelerator: bring schools, places of worship, and community centres together for joint audits, upgrades, grants, and recognition (**#29**).
- Implement a deep retrofit permit fast-tracking and fee rebate program for residential and commercial buildings undergoing major energy upgrades (**#34**).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-6 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Short-Term (2026-2028) Implementation Window		Assumptions
29	Start a schools and community hubs deep-retrofit accelerator which convenes schools/community centres/churches/etc. to co-procure audits, retrocommissioning, envelope fixes, and heating, ventilation and air conditioning improvements, paired with grants and recognition for participants.	50% of community facilities participate with a 30% reduction in energy use for participating community facilities.
30	Continue to encourage the planning and design of neighbourhoods that integrate land use and transportation plans. Plan and design neighbourhoods within nodes along planned transit routes that support frequent transit service during peak times (transit oriented development).	Results in 1% of new commercial and mixed use construction located in brownfield developments, resulting in 25% increase in new building energy efficiency and 1% mode shift to walking/cycling trips and 1% mode shift to transit.
31	Explore establishing redevelopment guidelines and policies in line with the NDPS, which aim to encourage neighbourhoods wherein residents can live, work, play & learn.	Successful amenity retrofitting of 10% of suburban neighbourhoods results in a 10% mode shift to walking/ cycling.
Mid-Term (2029-2031) Implementation Window		**Assumptions**
32	Create green infrastructure standards for new/redeveloped neighborhoods, including permeable surfaces and green roofs	15% of new development adopt, reducing stormwater pumping energy use by 7.5%.
33	Start a voluntary benchmarking and public recognition challenge, which provides recognitions and awards for large industrial, commercial and institutional (ICI) buildings that conduct annual energy benchmarking/disclosures, and fee rebates and/or permit fast-track for top energy performers/deep retrofits.	Partial uptake among 20% of ICI buildings by floor area resulting in 5% reduction in ICI building energy use.
34	Implement a deep retrofit permit fast-tracking and fee rebate program which provides priority reviews and partial fee rebates for ICI projects achieving >30% modeled energy reduction.	Partial uptake among 40% of ICI buildings by consumers resulting in 10% reduction in ICI building energy use.
Long-Term (2032-2035) Implementation Window		**Assumptions**
35	Provide midstream lighting, residential heating, ventilation, and air conditioning incentives through distributors which provide rebates for wholesalers who make sales of heat pumps, electric water heaters, variable frequency drives, and net-worked lighting controls (verified with sales data).	10% of applicable housing stock con-verts with 15% reduction in energy use for applicable homes.

Transportation

Responsible parties

City Planning & Growth (lead), Transit & Fleet, and Engineering Services, with residents, businesses, and regional partners.

Service description

Transportation includes all personal vehicles, trucks, transit buses, and freight moving within and through Red Deer. Gasoline and diesel fuel burned on local roads account for the largest single portion of community-wide emissions in most years, making shifts to walking, cycling, transit, and lower-carbon vehicles a top priority.

How can we reduce transportation energy and emissions?

The numbers after each action refer to the action IDs in the detailed implementation table in **Appendix A**.

Prioritized Actions

Policy

- Create a low-emissions and electric vehicle strategy: educate residents, remove barriers, and add incentives such as public charging and preferred parking (**#39**).

Programs

- Continue improving and reviewing bike and bike parking infrastructure city-wide (**#36**).
- Invest in direct, frequent transit routes with better waiting experience (Multimodal Transportation Plan) (**#37**).
- Support Red Deer citizens choosing active transportation by working towards implementing a comprehensive trail plan (**#38**).
- Support Red Deer citizens in choosing active transportation by working towards implementing a comprehensive city plan for connection in/through new neighbourhoods (**#40**).
- Support exploration of low-carbon fuels, such as hydrogen and ammonia (**#41**).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-7 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Short-Term (2026-2028) Implementation Window		Assumptions
36	Continue to build upon and review existing bike and bike parking infrastructure with overall changes in transportation habits and trends.	Results in 1.5% modeshift to cycling.
37	Support Red Deer's citizens in choosing Transit by investing in Direct Choice routing and frequent service to multiple destinations with an improved waiting experience, as outlined in the Multimodal Transportation Plan.	Results in 5% mode shift to transit.
38	Support Red Deer's citizens in choosing active transportation by working towards implementing a comprehensive trail plan as outlined in the Multi-modal Transportation Plan.	Results in 2% modeshift to walking/cycling.
Mid-Term (2029-2031) Implementation Window		**Assumptions**
39	Create a low-emissions and electric vehicle strategy to educate Red Deer's citizens about their choices, remove barriers and increase benefits to choosing low emitting vehicles, e.g. electric charging stations, preferred parking for carpoolers.	Results in 10% increased electric vehicle ownership.
40	Support Red Deer's citizens in choosing active transportation by working towards implementing a comprehensive city plan for connection in/through new neighbourhoods for modes of active transportation as outlined in the Multimodal Transportation Plan.	Results in 2.5% modeshift to walking/cycling.
Long-Term (2032-2035) Implementation Window		**Assumptions**
41	Support exploration of low-carbon fuels such as hydrogen and ammonia for hard-to-electrify vehicles by participating in regional working groups, sharing relevant City data, and aligning policies and plans.	Supports regional feasibility studies or small pilots for hydrogen and/or ammonia in heavy-duty applications, contributing to a 0.2% reduction in community transportation GHG emissions.

Forest and Natural Spaces / Food and Agriculture

Responsible parties

Parks & Public Works (lead), with community groups, landowners, and agricultural operators.

Service description

This category covers emissions and carbon sequestration from trees, parks, natural areas, and farmland within city limits, plus minor emissions from live-stock and soil management. Protecting and expanding urban forests and green spaces helps absorb CO_2, while supporting local food production can reduce emissions from food transport.

How can we reducenatural and agricultural energy and emissions?

The numbers after each action refer to the action IDs in the detailed implementation table in **Appendix A**.

Prioritized Actions

Policy and Programs

- Create a food and agriculture strategy to encourage local food production and reduce food miles (**#42**).
- Implement an invasive tree and pest monitoring program (**#43**)
- Achieve a15% increase of the urban tree stock through continued planting and protection (Urban Forest Master Plan) (**#44**).

The numbers listed in the first column of the table below is based on the priority score.

Table 4-8 List of Actions and Intended Outcomes Organized by Recommended Implementation Timeline

Mid-Term (2029-2031) Implementation Window		Assumptions
42	Support Red Deer's citizens by creating a food and agriculture strategy to encourage a resilient food and agriculture system that reduces food miles travelled, and contributes to the local economy.	Results in 5% increase in local food consump-tion.
43	Implement an invasive tree pest monitoring and tracking program to identify, isolate, and mitigate emerging and existing threats (e.g., Dutch elm disease, emerald ash borer), including systematic inventories, risk mapping, rapid response protocols, and coordinated communication with regional partners to protect the City's tree asset inventory.	Reduces pest-related tree mortality by at least 10% relative to business-as-usual, helping to preserve existing canopy cover, associated carbon sequestration, and cooling/shade benefits.
Long-Term (2032-2035) Implementation Window		**Assumptions**
44	Achieve 15% increase of the urban tree stock for the City as outlined in the draft Urban Forest Management Plan (UFMP).	Results in increasing the urban tree stock by 15%.

5 - PRINCIPLES & APPROACHES FOR SUCCESSFUL IMPLEMENTATION

Delivering Red Deer's energy reduction actions will require coordinated effort across departments, strong leadership, and meaningful partnerships. This section outlines the key systems, structures, and supports that will enable successful implementation.

5.1 Guiding Principles for Implementation

The following principles should guide how the strategy is put into action:

Collaboration

Encourage cross-departmental teamwork and open communication. For example, link City planning & Growth, Engineering Services, and Finance Services teams eary in project development to align goals and budgets.

Transparency

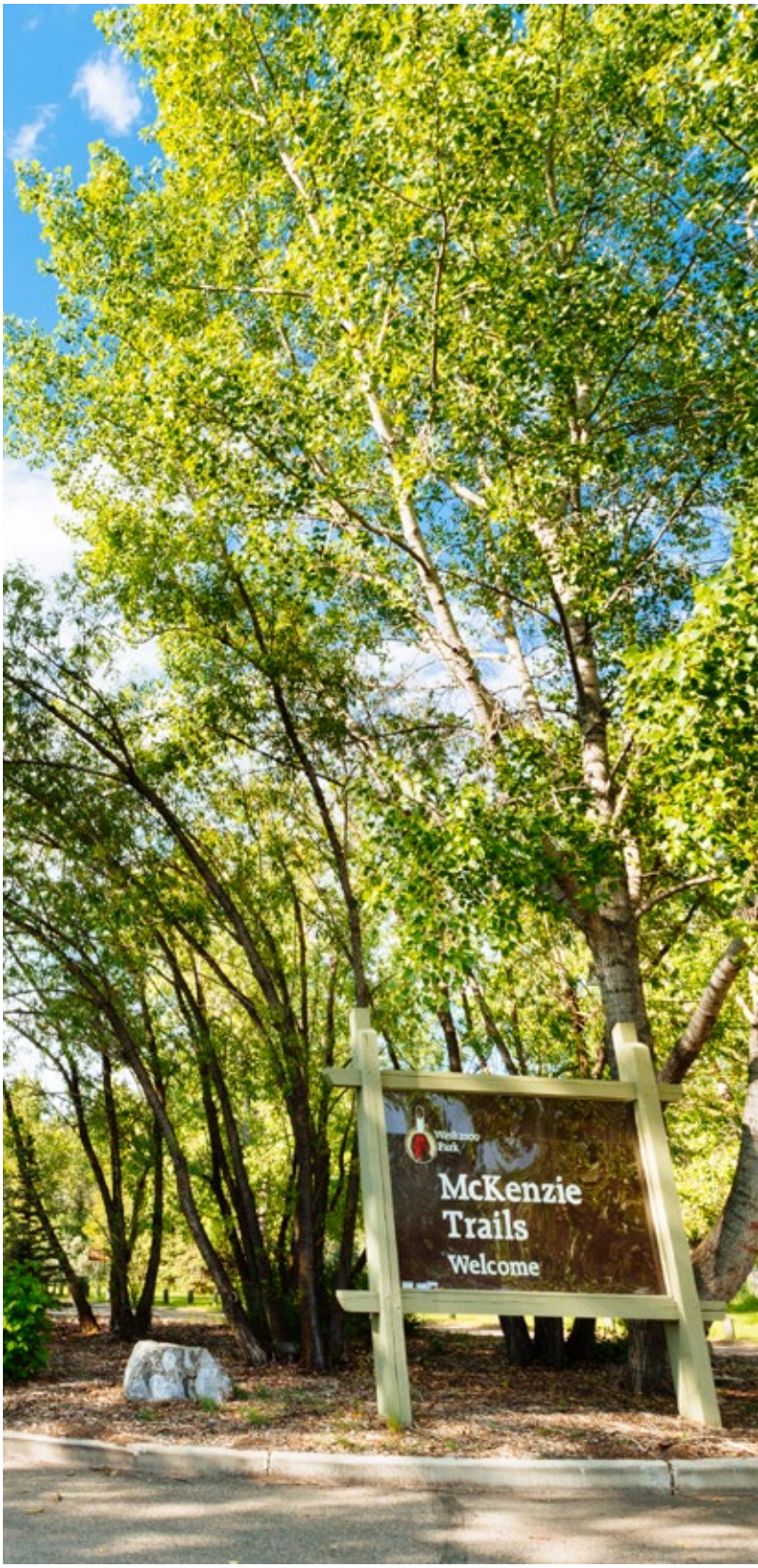
Share progress, challenges, and decisions with Council, staff, and the public. Ongoing reporting on the impact of Strategy actions will help articulate the value of these initiatives.

Adaptability

Build flexibility into plans so the City can respond to new technologies, funding opportunities, or policy or system changes. Being adaptable will allow the City to implement actions when capacity and resources are available.

Equity & Organizational Readiness

Deliver benefits to vulnerable residents while prioritizing actions the City has the capacity and resources to implement successfully. Use equity assessments and readiness scoring to guide design and sequencing.



5.2 Approaches We Can Leverage

Governance

A clear governance structure will help maintain momentum and accountability. This structure ensures that energy goals are not siloed, that leadership is shared across the organization, and decisions incorporate a wide range of perspectives.

The City could look to:

- **Establish a Steering Committee** with representatives from key departments (e.g., Safe & Healthy Communities, City Planning & Growth, Financial Services, Land & Economic Development), community organizations, Indigenous partners and external stakeholders like utilities or post-secondary institutions.
- **Develop a Terms of Reference** for the committee, outlining roles, decision-making authority, meeting schedules, and linkages to Council reporting.
- **Identify Energy Champions** within each department to promote integration, act as liaisons, and ensure alignment with sustainability actions.
- **Explore opportunities to update the emissions reductions targets as well as bylaws** to encourage uptake of low carbon transportation options (e.g., allowing e-scooters on City pathways).
- **Seek opportunities to mainstream emissions reduction actions** into existing business processes, day-to-day practices, and other projects to increase the ease of adoption.

Building Awareness and Buy-In

Internal Communications and Engagement

Staff need to understand how their work contributes to energy goals and broader sustainability targets. This builds a shared sense of purpose and helps staff see themselves as part of the solution, fostering buy-in for strategy implementation.

Recommended steps include:

- **Create a "Frequently Asked Questions" document** to answer questions about energy efficiency and diversification in order to tackle misinformation.
- **Hosting annual "Energy Briefings"** for all departments to discuss progress, share best practices, and align with milestones.
- **Creating an internal newsletter** or intranet page with updates, success stories, upcoming initiatives, and training resources on topics like lifecycle assessments.
- **Offering training on energy literacy** and how to do energy and emissions reduction work in practice to build organizational capacity.
- **Timing outreach and new initiatives to respect seasonal workload peaks** across departments and avoid capacity constraints.

Public Communications

Clear, consistent public communication is essential to build trust, encourage participation, and strengthen Red Deer's position as a leader in climate action. To do this, the City could:

- **Launch a branded campaign** (e.g., "Red Deer Powers Down") to promote energy actions incorporating storytelling to highlight local champions, such as businesses installing solar or residents retrofitting homes.
- **Use incentives to drive participation** (e.g., rebates for energy evaluations or upgrades to reduce barriers and build market confidence). Pay special consideration to equity supports that make incentives more accessible to all (e.g., do not require up front payment, additional supports to navigate programs).
- **Provide interactive tools** (e.g., online maps, energy calculators) to help residents understand their energy use, options and potential savings.
- **Host community events and workshops** to gather input, share progress, and address equity concerns.
- **Leverage partnerships to share information** through different channels, to increase reach and support.

Energy Management Processes and Policy

Energy goals must be embedded in the City's core processes to ensure everyday decisions support diversification and reductions. This ensures that energy considerations are integrated into decision-making, reducing long-term costs and advancing objectives. Recommended steps include:

- **Updating procurement policies** to prioritize energy-efficient and low-carbon products (e.g., default to LEDs).
- **Including climate and energy criteria in capital project evaluations**, such as lifecycle cost assessments to avoid carbon lock-in during asset replacements.
- **Aligning budgeting processes with energy targets**, such as setting aside funds for pilot projects, retrofits, or incentives.
- **Reviewing bylaws and development standards** to support renewable energy and energy-efficient buildings.

Energy management

To operationalize the above and drive continuous improvement in City facilities, the following ongoing practices are recommended:

- **Consider lifecycle cost savings and asset management related to the actions.** Understanding and communicating reduced costs can improve investment decisions.
- **Conduct regular energy audits** of the highest-consuming municipal buildings (top 20 % of portfolio) every three to five years, with lighter reviews for the rest.
- **Maintain a living Corporate Energy Management Plan** that sets annual reduction targets, tracks performance, and identifies new opportunities.
- **Deliver ongoing training and resources** for facility managers and operations staff on best practices (e.g., BMS optimization, occupant engagement, fault detection).
- **Establish clear accountability** for GHG and energy reduction in facility portfolios, with performance metrics tied to departmental scorecards.
- **Lead by example on energy-efficient retrofits:** plan, fund, execute, and showcase deep retrofits in high-visibility City buildings (e.g., recreation centres, City Hall) from start to finish, capturing lessons learned for future projects.

Partnerships and Collaboration

Regional Relationships

Red Deer should work with surrounding municipalities, Indigenous communities, and regional agencies. The City can consider forming a Regional Energy Working Group to align efforts and pursue joint funding to:

- **Share data, best practices, and lessons** from GHG inventories, energy audits, and emissions reductions projects.
- **Coordinate infrastructure investments**, such as shared renewable projects or adaptation measures.
- **Advocate for supportive provincial and federal policies**, including funding for energy diversifications.

External Partnerships

Engage with utilities, businesses, non-profits, and post-secondary institutions. Formalize partnerships through memoranda of understandings or joint initiatives to clarify roles, expectations, and contributions, enhancing the City's complementary role in community-wide efforts to:

- **Pilot new technologies** (e.g., district energy, battery storage, or waste-to-energy) through formalized agreements.
- **Support workforce development and training** on sustainable practices.
- **Access grants, technical expertise, and incentives** to offset costs and scale initiatives.

Innovation

To stay ahead, Red Deer should consider creating an Innovation Fund to support pilot projects and emerging solutions by:

- **Investing in data systems** that track energy use, emissions, savings, and performance across facilities and programs, enabling prioritized investments based on real-time insights.
- **Exploring smart technologies** like building automation, EV charging networks, AI-powered energy management, and lifecycle assessment tools to model scenarios and assess risks.
- **Using software tools** to model scenarios, assess risks, and support decision-making.

Further Studies

Some actions will require deeper analysis before implementation to address uncertainties. These studies should be scoped early and aligned with funding cycles to avoid delays.

Priority areas for further study include:

- **Feasibility of district energy systems** in key zones, such as downtown redevelopment areas.
- **Opportunities for deep energy retrofits** in municipal buildings, comprehensive energy and process audits of water and wastewater treatment and distribution systems, and renewal of facilities energy audits for the corporate building portfolio.
- **Community energy mapping** to identify high-impact areas for financing and equity-focused programs.
- **Equity impacts of energy programs and broader climate risks** (corporate and community-wide), including a comprehensive climate risk and vulnerability assessment that identifies overlaps with energy initiatives (e.g., extreme heat, flooding, wildfire smoke, drought, and severe storms) and prioritizes actions that deliver the greatest co-benefits for vulnerable populations.

Monitoring and Reporting

Tracking progress is essential for learning, accountability, and continuous improvement. Consider aligning reporting with other sustainability or climate frameworks to streamline efforts. The City should:

- **Develop a performance dashboard with key indicators** (e.g., GHG reductions, energy savings, participation rates, and cost-benefit ratios) to support ongoing monitoring of progress and impact.
- **Report annually to Council and the public,** celebrating milestones and refining actions based on data from GHG inventories and economic analyses. Report on the metrics that are most meaningful to each audience.
- **Use results to allocate resources**, adjust for emerging risks (e.g., rising climate costs), and align with sustainability frameworks.
- **Conduct regular retrospectives** at project and portfolio levels to evaluate performance against models and targets, ensuring warranty-period assessments for new facilities.
- **Reflect on lessons learned and identify areas for continuous improvement** by leveraging information gathered to comply with regulations and initiatives such as:

  Alberta Annual Emissions Inventory Report (AEIR) Program.

  Federal Greenhouse Gas Reporting Program (GHGRP).

  Federal National Pollutant Release Inventory (NPRI).

  Landfill Methane Regulations

6 - NEXT STEPS & RECOMMENDATIONS

The strategy lays the groundwork for energy diversification and emissions reductions actions to be implemented over the next 10 years. Completing the following immediate next steps will be important for ramping up adoption and integrating these actions into municipal decision-making and processes.

To advance energy diversification and emissions reduction across municipal operations, the following actions are recommended to be completed within the next six months:

Reflect on Capacity and Priorities

Safe & Healthy Communities should work with service lines to reflect on what resources are realistically available to support action implementation. While initial prioritization of the actions in this strategy has already been completed, the City needs to reflect further on which items to prioritize.

Service Line Planning

Based on the reflection on capacity and priorities, service lines should undertake more detailed planning to implement the actions and align with departmental initiatives. The purpose of this is to integrate emissions reductions actions into existing initiatives and pursue initiatives that have the greatest potential to be implemented.

Funding Opportunities

City service lines interested in implementing actions are recommended to explore external funding (e.g., grants, Energy Service Company (ESCO) contracts) to support implementation and reduce sole reliance on Council budget funding. Use the Strategy as a guide for where to focus funding application efforts.

A curated list of funding programs is provided in **Appendix C**.

APPENDIX A
ACTION IMPLEMENTATION DETAILS

The following tables provide implementation-ready details for each of the 44 prioritized actions.

Actions are ordered by Total Score (highest to lowest) within each focus area (e.g., buildings, fleet). The score is the result of the quantitative prioritization process described in **Appendix B.**

Some details are colour coded for quick visual scanning, as shown in the table below:

Table A-1 Guidance for Interpreting Colour Coded Results for Three Criterion

Criterion	Red (L) means	Yellow (M) means	Green (H) means
Cost to Implement	High cost	Medium cost	Low cost
Estimated Return / Payback	Long/slow payback	Moderate payback	Fast/strong payback
All other criteria	Low benefit/impact	Moderate	High benefit/impact

See **Table B-1** for a more detailed overview of the scoring criteria.

Important context when reviewing the implementation cost estimates:

- Cost ranges (H/M/L) are high-level estimates derived from similar actions in the 2018 CEEP, adjusted for inflation.
- The provided estimates are not detailed budgets. Further feasibility studies and/or refined costing should be completed before any action is brought forward for funding approval.

Table A-2 Emissions Reduction Action Implementation Details and Prioritization Scoring Results

Action #	Service Line	Action Description	Assumptions	Annual Energy Reductions (GJ)	Cost to Implement ($M)	Estimated Return by 2035 ($M)	Energy Reduction	Cost to Implement	Estimated Return	Organizational Readiness	Climate Resilience Impact	Health Impacts	Equity Impacts	Total Score	Timeline
1	Buildings	Define energy efficiency operational standards for City-owned buildings.	Results in 100% of City buildings achieving 10% energy reduction.	5,800	0.6	5.5	H	L	M	M	L	L	L	30	Short-Term (2026-2028)
2	Buildings	Explore establishment of a corporate policy to define energy efficiency standards for City-owned buildings, as directed in the Sustainable Buildings Strategy.	Results in 100% of new and existing City buildings achieving 40% energy reduction.	8,000	2.8	9.7	H	M	M	H	L	L	L	30	Short-Term (2026-2028)
3	Buildings	Develop programs to engage Red Deer's citizens in the highest-impact home energy upgrades, such as roof and attic insulation, building envelope improvements, and high-efficiency furnace and heating, ventilation and air conditioning replacements, using Clean Energy Improvement Program (CEIP) style property-tax-based financing to reduce upfront costs and encourage deeper retrofits.	Results in 2.5% increase residential energy efficiency.	19,200	1.3	5.5	H	M	M	L	M	M	M	30	Short-Term (2026-2028)
4	Buildings	Create a targeted envelope upgrades program to fix common envelope weak points (doors, dock seals, vestibules, hatches, curtainwall gaskets) during routine maintenance.	Results in a 1% energy reduction in City facilities	3,300	1.0	1.5	M	L	L	H	M	L	L	29	Short-Term (2026-2028)
5	Buildings	Establish a lighting controls optimization program to assess and upgrade lighting controls (occupancy/ daylight, zoning, scheduling) where LEDs exist or are planned and integrate with building management systems where present.	Results in a 2% energy reduction in City facilities	6,700	1.0	2.0	M	L	L	H	L	L	L	28	Mid-Term (2029-2031)
6	Buildings	Establish a photovoltaic and battery siting & readiness program to identify priority roofs/yards for solar and short-duration batteries	Results in 4% of energy use in City facilities being offset by solar photovoltaic energy.	13,400	3.0	6.0	H	H	H	M	M	L	L	28	Mid-Term (2029-2031)
7	Buildings	Establish a heating, ventilation and air conditioning (HVAC) control optimization & fault detection and diagnostics program which rolls out standards-based control tuning and analytics packages (demand-controlled ventilation/carbon dioxide control, resets, optimal start/stop, fault detection) for sites with existing building management systems.	Results in a 4% energy reduction in City facilities	13,400	2.0	4.0	H	M	M	M	L	L	L	27	Mid-Term (2029-2031)

Action #	Service Line	Action Description	Assumptions	Annual Energy Reductions (GJ)	Cost to Implement ($M)	Estimated Return by 2035 ($M)	Energy Reduction	Cost to Implement	Estimated Return	Organizational Readiness	Climate Resilience Impact	Health Impacts	Equity Impacts	Total Score	Timeline
8	Buildings	Adopt an electrification-at-replacement policy to consider heat pumps or hybrid solutions at end-of-life replacements at City facilities.	Results in a 3% energy reduction in City facilities	10,000	2.5	5.0	H	M	M	M	L	L	L	27	Mid-Term (2029-2031)
9	Buildings	Implement an after-hours plug & small-load governance policy to cut baseload from plug-in appliances and equipment in off-peak hours or when not in use.	Results in a 1% energy reduction in City facilities	3,300	0.5	1.0	M	L	L	M	L	L	L	25	Long-Term (2032-2035)
10	Buildings	In City developments for which there is a Request for Proposal, implement a process wherein social, cultural, economic and environmental criteria are considered.	5% of new residential and industrial, commercial and institutional (ICI) development is 15% more efficient.	3,900	1.3	5.5	H	M	M	L	L	L	L	24	Long-Term (2032-2035)
11	Buildings	Encourage energy efficient new buildings and retrofits on privately owned property by reducing financial barriers, including for lower-income households.	Results in 10% of new residential construction achieving 25% efficiency.	2,000	1.5	2.0	M	M	M	L	L	L	M	23	Long-Term (2032-2035)
12	Buildings	Create an education campaign surrounding consumer options for high efficiency home building.	10% of new residential construction is 40% more efficient.	2,000	0.5	0.8	M	L	L	L	L	L	L	22	Long-Term (2032-2035)
13	Buildings	Create a waste heat recovery screening program to identify recoverable heat sources (ice plants, server/IT rooms, mechanical rooms) and match to nearby domestic hot water/space heating/preheating loads.	Results in a 2% energy reduction in City facilities	6,700	1.5	3.0	M	M	L	M	L	L	L	22	Long-Term (2032-2035)
14	Fleet	Implement a tire pressure and alignment program which includes routine tire pressure checks and alignment schedules.	Results in 2% reduction in annual corporate Fleet fuel use.	1,500	0.5	1.0	M	L	M	H	L	L	L	28	Short-Term (2026-2028)
15	Fleet	Create a right-sizing & vehicle pooling program for City staff by analyzing vehicle utilization, retiring or replacing underused or oversized units, and establishing a shared vehicle pool to increase vehicle utilization.	Results in 4% reduction in annual corporate Fleet fuel use from fewer and/ or downsized vehicles.	2,900	1.0	2.0	M	M	H	M	L	L	L	28	Mid-Term (2029-2031)

Action #	Service Line	Action Description	Assumptions	Annual Energy Reductions (GJ)	Cost to Implement ($M)	Estimated Return by 2035 ($M)	Energy Reduction	Cost to Implement	Estimated Return	Organizational Readiness	Climate Resilience Impact	Health Impacts	Equity Impacts	Total Score	Timeline
16	Fleet	Expand installation of GPS/automatic vehicle location systems across corporate fleet units and develop operator feedback dashboards to support more efficient driving and routing practices.	Results in a 3% reduction in annual corporate fleet fuel use and vehicle kilometers traveled (VKT) through improved operator behaviour and real-time performance feedback.	3,700	1.5	3.0	M	M	H	M	L	L	L	28	Long-Term (2032-2035)
17	Water/ Wastewater	Develop a pump optimization program for the water and wastewater treatment plants to reduce short-cycling, install or retune variable frequency drives, and right-size impellers and pumps.	Results in 10% reduction in energy used for pumping in water and wastewater treatment plants.	1,300	2.0	0.4	M	M	L	H	L	L	L	25	Short-Term (2026-2028)
18	Water/ Wastewater	Install high-efficiency blowers at wastewater treatment plants.	Results in 15% reduction in wastewater blower energy use.	2,300	3.0	0.8	M	H	H	M	L	L	L	25	Mid-Term (2029-2031)
19	Water/ Wastewater	Implement higher-efficiency wastewater treatment plant digester systems and corresponding equipment (e.g., mixing, heating, gas handling, and auxiliary drives) as part of planned upgrades and upgrades during asset renewal.	Results in a 10% reduction in WWTP process electricity for digestion compared to business-as-usual equipment replacement by 2030.	15,800	3.0	1.6	H	M	M	M	L	L	L	24	Long-Term (2032-2035)
20	Water/ Wastewater	Explore process heat recovery in the wastewater treatments plant to make use of effluent or process waste heat.	Results in 10% reduction in energy used for space heating in wastewater treatment plant.	4,000	0.3	0.1	M	L	L	L	L	L	M	23	Long-Term (2032-2035)
21	Water/ Wastewater	Modernize aeration controls by installing sensors that continuously measure ammonia and oxygen levels in the tanks, using automated controls to fine-tune oxygen targets, upgrading or retuning adjustable-speed blower drives, and regularly reviewing performance data.	Results in 15% reduction in wastewater aeration energy use.	2,900	2.5	1.0	M	H	M	M	L	L	L	22	Long-Term (2032-2035)
22	Waste	Create policy to continue diverting solid waste from landfills, for example differential tipping fees leading to disposal bans of divertible materials.	Results in 5% increased waste diversion.	7,000	0.4	0.5	M	L	L	H	L	L	L	25	Short-Term (2026-2028)

Action #	Service Line	Action Description	Assumptions	Annual Energy Reductions (GJ)	Cost to Implement ($M)	Estimated Return by 2035 ($M)	Energy Reduction	Cost to Implement	Estimated Return	Organizational Readiness	Climate Resilience Impact	Health Impacts	Equity Impacts	Total Score	Timeline
23	Waste	Develop and implement a community reuse and repurpose program by expanding the circular economy hub to include a library of things, repair and reuse events, and sharing initiatives that help residents reduce waste.	8% reduction in e-waste to landfill via reuse, reducing embodied emissions from new product manufacturing; complements WMMP organics expansion.	0	1.0	0.7	L	M	L	M	L	L	M	21	Mid-Term (2029-2031)
24	Waste	Develop and implement a Landfill Gas collection efficiency optimization program, including wellfield tuning, flare/compressor reliability improvements, and enhanced cover/ condensate management, aligned with Waste Management Facility capital upgrades and federal methane regulations.	Results in a 15% improvement in landfill gas captured, with implementation timelines and targets subject to change due to federal regulatory requirements	1,000	1.5	2.0	L	H	L	M	L	L	L	14	Long-Term (2032-2035)
25	Energy	Develop and build internal capacity to create and implement an energy optimization strategy for Red Deer to learn what are the contextually appropriate, best return on investment options for Red Deer, for example investigating community scale renewable energy projects, community owned/municipal renewable energy utility, grid optimization, energy efficiency, etc.	Results in 2.5% fuel switch to renewables	19,000	48.0	50	H	H	H	M	L	L	L	27	Short-Term (2026-2028)
26	Energy	Organize renewable energy group purchases: bulk buying of renewable energy systems (e.g. heat pumps, solar panels, solar thermal panels, ground-source heat pumps) for building owners.	Results in 2.5% fuel switch to renewables.	19,000	48.0	50	H	H	H	M	L	L	L	27	Mid-Term (2029-2031)
27	Energy	Pilot community battery storage and demand-response programs tied to renewables.	5% peak load shifted to off-peak/renewables, reducing grid reliance; supports Energy Diversification Strategy	206,000	48.0	50	H	H	H	M	L	L	L	27	Mid-Term (2029-2031)
28	Energy	Build internal capacity and structure at City of Red Deer to support emerging citizen/business micro-generation needs and allow The City to encourage development of renewable energy sources.	Results in 2.5% fuel switch to renewables.	19,000	48.0	50	H	H	H	L	L	L	L	24	Long-Term (2032-2035)

Action #	Service Line	Action Description	Assumptions	Annual Energy Reductions (GJ)	Cost to Implement ($M)	Estimated Return by 2035 ($M)	Energy Reduction	Cost to Implement	Estimated Return	Organizational Readiness	Climate Resilience Impact	Health Impacts	Equity Impacts	Total Score	Timeline
29	Happy and Healthy Communities	Start a schools and community hubs deep-retrofit accelerator which convenes schools/community centres/churches/etc. to co-procure audits, retrocommissioning, envelope fixes, and heating, ventilation and air conditioning improvements, paired with grants and recognition for participants.	50% of community facilities participate with a 30% reduction in energy use for participating community facilities.	132,000	3.0	10	H	L	H	L	L	L	M	31	Short-Term (2026-2028)
30	Happy and Healthy Communities	Continue to encourage the planning and design of neighbourhoods that integrate land use and transportation plans. Plan and design neighbourhoods within nodes along planned transit routes that support frequent transit service during peak times (transit oriented development).	Results in 1% of new commercial and mixed use construction located in brownfield developments, resulting in 25% increase in new building energy efficiency and 1% mode shift to walking/cycling trips and 1% mode shift to transit.	201,000	15.6	42	H	H	H	M	L	H	H	31	Short-Term (2026-2028)
31	Happy and Healthy Communities	Explore establishing redevelopment guidelines and policies in line with Neighbourhood Planning & Design Standards (NPDS), which aim to encourage neighbourhoods wherein residents can live, work, play & learn.	Successful amenity retrofitting of 10% of suburban neighbourhoods results in a 2% mode shift to walking/cycling.	89,600	10.0	10	H	H	H	L	L	H	M	27	Short-Term (2026-2028)
32	Happy and Healthy Communities	Create green infrastructure standards for new/redeveloped neighborhoods, including permeable surfaces and green roofs	15% of new development adopt, reducing stormwater pumping energy use by 7.5%.	500,000	12.0	60	H	H	H	L	H	L	L	26	Mid-Term (2029-2031)
33	Happy and Healthy Communities	Start a voluntary benchmarking and public recognition challenge, which provides recognitions and awards for large industrial, commercial and institutional (ICI) buildings that conduct annual energy benchmarking/disclosures, and fee rebates and/or permit fast-track for top energy performers/deep retrofits.	Partial uptake among 20% of industrial, commercial and institutional (ICI) buildings by floor area resulting in 5% reduction in industrial, commercial and institutional (ICI) building energy use.	88,000	1.0	5.0	H	M	M	L	L	L	L	24	Mid-Term (2029-2031)

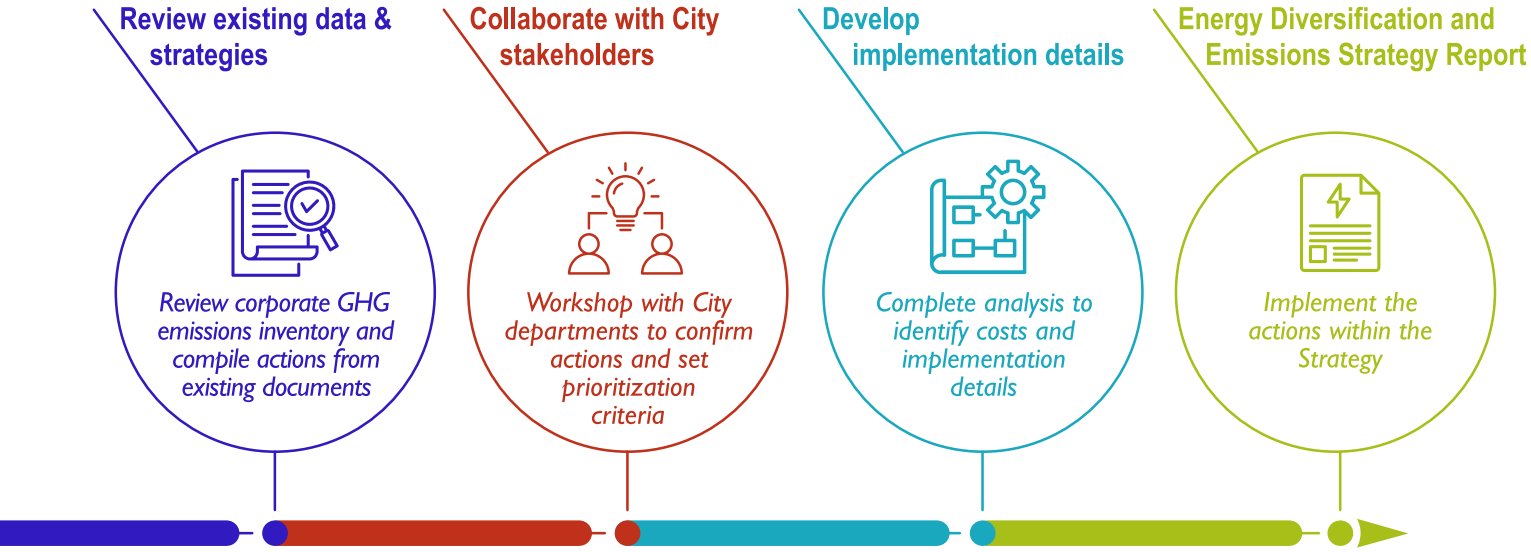
Action #	Service Line	Action Description	Assumptions	Annual Energy Reductions (GJ)	Cost to Implement ($M)	Estimated Return by 2035 ($M)	Energy Reduction	Cost to Implement	Estimated Return	Organizational Readiness	Climate Resilience Impact	Health Impacts	Equity Impacts	Total Score	Timeline
34	Happy and Healthy Communities	Implement a deep retrofit permit fast-tracking and fee rebate program which provides priority reviews and partial fee rebates for industrial, commercial and institutional (ICI) projects achieving >30% modeled energy reduction.	Partial uptake among 40% of industrial, commercial and institutional (ICI) buildings by consumers resulting in 10% reduction in industrial, commercial and institutional (ICI) building energy use.	352,000	5.0	20	H	H	H	L	L	L	L	24	Mid-Term (2029-2031)
35	Happy and Healthy Communities	Provide midstream lighting, residential heating, ventilation, and air conditioning incentives through distributors which provide rebates for wholesalers who make sales of heat pumps, electric water heaters, variable frequency drives, and networked lighting controls (verified with sales data).	10% of applicable housing stock converts with 15% reduction in energy use for applicable homes.	32,200	2.0	3.0	H	H	H	L	L	L	L	24	Long-Term (2032-2035)
36	Transportation	Continue to build upon and review existing bike and bike parking infrastructure with overall changes in transportation habits and trends.	Results in 1.5% modeshift to cycling.	3,000	2.0	3.0	H	M	M	M	L	H	M	30	Short-Term (2026-2028)
37	Transportation	Support Red Deer's citizens in choosing Transit by investing in Direct Choice routing and frequent service to multiple destinations with an improved waiting experience, as outlined in the Multimodal Transportation Plan.	Results in 5% mode shift to transit.	9,700	20.0	15	H	H	H	M	L	L	H	29	Short-Term (2026-2028)
38	Transportation	Support Red Deer's citizens in choosing active transportation by working towards implementing a comprehensive trail plan as outlined in the Multimodal Transportation Plan.	Results in 2% modeshift to walking/cycling.	4,000	12.0	6.0	H	H	M	M	L	H	M	27	Short-Term (2026-2028)
39	Transportation	Create a low-emissions and electric vehicle strategy to educate Red Deer's citizens about their choices, remove barriers and increase benefits to choosing low emitting vehicles, e.g. electric charging stations, preferred parking for carpoolers.	Results in 10% increased electric vehicle ownership.	35,000	3.0	8.0	H	M	M	L	L	M	M	26	Mid-Term (2029-2031)

Action #	Service Line	Action Description	Assumptions	Annual Energy Reductions (GJ)	Cost to Implement ($M)	Estimated Return by 2035 ($M)	Energy Reduction	Cost to Implement	Estimated Return	Organizational Readiness	Climate Resilience Impact	Health Impacts	Equity Impacts	Total Score	Timeline
40	Transportation	Support Red Deer's citizens in choosing active transportation by working towards implementing a comprehensive city plan for connection in/through new neighbourhoods for modes of active transportation as outlined in the Multimodal Transportation Plan.	Results in 2.5% modeshift to walking/ cycling.	5,000	15.0	7.0	H	H	M	L	L	H	M	24	Mid-Term (2029-2031)
41	Transportation	Support exploration of low-carbon fuels such as hydrogen and ammonia for hard-to-electrify vehicles by participating in regional working groups, sharing relevant City data, and aligning policies and plans.	Supports regional feasibility studies or small pilots for hydrogen and/or ammonia in heavy-duty applications, contributing to a 0.2% reduction in community transportation greenhouse gas (GHG) emissions.	4,000	5.0	6.0	H	M	M	L	L	L	L	24	Long-Term (2032-2035)
42	Food and Agriculture	Support Red Deer's citizens by creating a food and agriculture strategy to encourage a resilient food and agriculture system that reduces food miles travelled, and contributes to the local economy.	Results in 5% increase in local food consumption.	66,000	0.5	2.0	H	L	M	M	L	M	M	32	Mid-Term (2029-2031)
43	Forests and Natural Spaces	Implement an invasive tree pest monitoring and tracking program to identify, isolate, and mitigate emerging and existing threats (e.g., Dutch elm disease, emerald ash borer), including systematic inventories, risk mapping, rapid response protocols, and coordinated communication with regional partners to protect the City's tree asset inventory.	Reduces pest-related tree mortality by at least 10% relative to business-as-usual, helping to preserve existing canopy cover, associated carbon sequestration, and cooling/shade benefits.	0	1.0	0.0	L	M	I	M	H	H	H	26	Mid-Term (2029-2031)
44	Forests and Natural Spaces	Achieve a 15% increase of the urban tree stock for the city as outlined in the draft Urban Forest Management Plan (UFMP).	Results in increasing the urban tree stock by 15%.	0	2.0	0.5	L	M	L	L	M	M	M	20	Long-Term (2032-2035)

APPENDIX B
METHODOLOGY & SCORING CRITERIA

To develop the Energy Diversification and Emissions Strategy, we followed a structured process with three key steps.

Figure B-1 Approach to Developing the Energy Diversification and Emissions Strategy



Review existing data and strategies

We started by examining the City's corporate GHG inventory and related plans. From these documents, we compiled a long list of actions that had already been identified. To make the information easier to work with, we grouped these actions into categories based on emissions themes and the mural framework.

Collaborate with City stakeholders

Through workshops, we shared the compiled actions and asked departments to confirm which ones should be prioritized. City staff also suggested new actions to add to the list. These discussions helped us understand what is already underway, where actions align with existing initiatives, and what connections could support implementation. We also gathered feedback on prioritization criteria—what matters most, what challenges exist, and what factors make implementation easier.

Prioritize actions and develop implementation details

For each action, we applied the agreed prioritization criteria and calculated weighted scores to reflect what is most important to the City. The agreed upon prioritization criteria is summarized in **Table B-1** on the page following.

Table B-1 Prioritization Criteria

Weighting	2	3	3	3	1	1	1
Score	**Energy Reductions (GJ)**	**Cost to Implement**	**Estimated Return**	**Organizational Readiness**	**Climate Resilience Impact**	**Health Impacts**	**Equity Impacts**
High (3)	>10,000	<$1,000,000	>$10,000,000	The organization is ready to implement: clear owners are identified, there is a defined plan, there is strong alignment with existing programs, and committed or very likely grant/ match funding.	There are significant climate resilience or climate mitigation co-benefits from the action.	There are significant health co-benefits from the action.	This action significantly benefits underserved communities or has high community equity impacts.
Medium (2)	1,000 – 10,000	$1,000,000 – $10,000,000	$1,000,000 – $10,000,000	The organization is partly ready: some staffing and planning identified, general alignment with programs, and potential but uncertain grant or funding opportunities.	There are moderate climate resilience or climate mitigation co-benefits from the action.	There are moderate health co-benefits from the action.	This action has some benefits for underserved communities or has moderate community equity impacts.
Low (1)	<1,000	>$10,000,000	<$1,000,000	The organization is not currently ready: no clear owner or plan, little to no alignment with current programs, and few or no realistic funding or grant opportunities.	There are low or no climate resilience or climate mitigation co-benefits from the action.	There are low or no health co-benefits from the action.	This action does not directly benefit underserved communities or has low community equity impacts.

Total Score = Energy Reduction Score x 2 + Cost to Implement Score x 3 + Estimated Return Score x 3 + Climate Co-benefits Score x 1 + Health Impacts Score x 1 + Equity Impacts Score x 1

Each criterion was scored 1–5, the resulting Total Score determines the order of actions within each implementation table in **Appendix A** — the highest-scoring actions are listed first so the City can focus on the highest-impact, most cost-effective, and most feasible opportunities early.

Cost to implement and return estimates in the **Appendix A** tables are high-level, rough-order-of-magnitude ranges (H, M, L). They were developed by referencing cost information already provided for similar-scale actions in the 2018 CEEP, adjusted where necessary for inflation and current market conditions. These are not detailed engineering estimates. Before any action is budgeted or implemented, the City will need to undertake further scoping, feasibility studies, and detailed cost refinement.

Returns reflect the potential returns over the planning horizon that could be achieved by 2035.

APPENDIX C
FUNDING OPPORTUNITIES

Table C-1 Funding Opportunities Available to Support Actions for Each Emissions Reduction Category

Category	Funding Programs	Objectives and Description	Provider	Program Status	Notes
Buildings	Retrofit of existing municipal buildings - Capital	Retrofit a municipal building or portfolio of municipal buildings for higher energy performance and significant GHG emissions reduction.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Combined grant and loan for up to 80% of eligible costs. • Combined grant and loan up to a maximum of $10 million. • Grant up to 20% of total loan amount.
Buildings	Study: Retrofit pathway for municipal buildings	Outline the design of a proposed retrofit of an existing municipal building or portfolio of existing municipal buildings.	Green Municipal Fund	Applications paused, will reopen in 2026.	Maximum Award: • Grant for up to 50% of eligible costs. • Up to a maximum of $65,000 for a single building, up to $200,000 for multiple buildings.
Buildings	Federation of Canadian Municipalities - Capital Project: GHG Reduction Pathway Retrofit and Capital Project: GHG Impact Retrofit	Projects must aim to achieve a minimum 30% GHG reduction from current or baseline performance. Eligible projects may be a single building retrofit, or a portfolio of buildings (across a single municipality or group of municipalities).	Federation of Canadian Municipalities (FCM)	Applications are accepted year-round.	Maximum of $5 million per project. Up to 25% as a grant and the remainder as a loan. Combined loan and grant for up to 80% of eligible project costs.
Buildings	Community Energy Conservation Program	The Community Energy Conservation (CEC) program provides financial rebates to municipalities to help identify energy-saving opportunities and implement retrofit projects in municipally-owned facilities. This program includes funding for both energy audits and retrofits.	Municipal Climate Change Centre	Active; deadline March 2026 or upon full allocation (first-come, first-served).	Municipalities can access up to $500,000 through the CEC program to support energy audits or retrofits in a variety of municipally owned facilities, including water and wastewater treatment facilities.
Buildings	FortisAlberta Save Energy Grants	FortisAlberta's Save Energy Grants provide funding to support our communities, municipalities, schools and Indigenous communities in making upgrades or improvements that result in energy savings. The fund supports projects that reduce energy consumption and help to efficiently control when and how energy is used.	Fortis Alberta	Application deadlines April 30 and September 30 annually.	"Energy Audits – Up to 50% of pre-GST audit costs (per facility) to a maximum of $7,500 for all municipal facilities.
Buildings	Roving Energy Manager Program	The Roving Energy Manager (REM) program helps municipalities navigate the ever-changing energy efficiency landscape by providing a free energy manager service.	Municipal Climate Change Action Centre	September 5, 2025 (Cohort 2); program ongoing with potential future cohorts.	Up to $10,000 in rebates is available to support energy efficiency projects.
Fleet	Capital project: Municipal Fleet Electrification	Drive a partial or complete transition of your municipal and/or transit fleet to zero-emission vehicles.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Combined grant and loan for up to 80% of eligible costs. • Combined grant and loan up to a maximum of $10M. • Grant for up to 15% of loan amount.
Fleet	Study: Municipal Fleet Electrification	Assess the feasibility of the transition to zero-emission vehicles (ZEVs) to significantly reduce GHG emissions.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Grant for up to 50% of eligible costs. • Up to a maximum of $200,000.
Fleet	Incentives for Zero Emissions Vehicles and Incentives for Medium and Heavy-Duty Zero-Emission Vehicles	The Government of Canada launched the Incentives for Medium- and Heavy-Duty Zero-Emission Vehicles (iMHZEV) Program in July 2022. The iMHZEV Program can provide incentives of up to $200,000.	Government of Canada	Launched in July 2024, still accepting applications.	Purchase and lease incentives up to $5,000 per vehicle for light duty ZEVs and up to $200,000 per vehicle for medium and heavy-duty vehicles.

Category	Funding Programs	Objectives and Description	Provider	Program Status	Notes
Fleet	Electric Vehicles for Municipalities Program	This Program provides funding to municipalities to purchase electric vehicles, build charging stations, and conduct feasibility studies.	Municipal Climate Change Action Centre	Currently inactive, but may re-open.	This Program provides up to $750,000 in funding.
Waste	Study: Organic Waste-to-Energy	Outline the design of a proposed organic waste-to-energy system.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Grant for up to 50% of eligible costs. • Up to a maximum of $200,000.
Waste	Capital project: Organic Waste-to-Energy	Construct, commission and begin operation of an organic waste-to-energy system.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Combined grant and loan for up to 80% of eligible costs. • Combined grant and loan up to a maximum of $10 million. • Grant up to 15% of the loan amount. • Additional 5% grant available if the project involves the remediation of a brownfield site.
Energy	Municipal Electricity Generation Program	The Municipal Electricity Generation Program (MEG) provides financial rebates to Alberta municipalities to install grid-connected alternative electricity generation systems on municipally owned facilities or land.	Municipal Climate Change Action Centre	March 2026 or upon full allocation (first-come, first-served).	Funding provides per-watt rebates up to a maximum of 30% of project costs, with rates: <10 kW: $0.85/watt; 10 kW to <150 kW: $0.70/watt; 150 kW to <2 MW: $0.55/watt; 2 MW to 5 MW: $0.50/watt. A first-time applicant bonus of $0.20/watt for first project, max $500,000 per municipality.
Energy	Capital project: Net-Zero Transformation	Deploy a full scale best-in-class GHG reduction solution.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Combined grant and loan for up to 80% of eligible costs. • Combined grant and loan to a maximum of $10M. • Grant up to 15% of the total loan amount. • Additional 5% grant available if the project involves the remediation of a brownfield site.
Energy	Study: Net-Zero Transformation	Assess new approaches and solutions to bring your community closer to net-zero.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Grant for up to 50% of eligible costs. • Up to a maximum of $200,000.
Energy	Plan: Net-Zero Transformation	Conduct integrated planning exercises to support the municipal transition to net-zero.	Green Municipal Fund	Applications are accepted year-round, though this offer may close when all funding has been allocated.	Maximum Award: • Grant for up to 50% of eligible costs. • Up to a maximum of $200,000.
Energy	Green Industrial Facilities and Manufacturing Program	The Green Industrial Facilities Manufacturing Program (GIFMP) provides financial assistance to support the implementation of energy efficiency and energy management solutions designed to maximize energy performance, reduce greenhouse gas (GHG) emissions, and increase competitiveness for industry in Canada.	Natural Resources Canada (NRCan), Office of Energy Efficiency (OEE)	Closed; no further intakes planned.	Round 3 for Industrial Facility Track ran from August 14 to September 26, 2025; applications now closed. Up to 50% of eligible costs, from $40,000 to $10 million per proposal. No additional calls planned for 2025-2026.
Energy	Clean Energy Improvement Program	Receive support to develop property assessed clean energy financing options for residential and commercial property owners in your municipality.	Alberta Municipalities	Active and ongoing; new launches and applications available.	Reopened and expanded in 2025; e.g., City of Wetaskiwin residential program launched October 1, 2025. Financing up to 100% of costs at 3.75% interest; multiple municipalities (e.g., Calgary, Edmonton) accepting applications year-round. Proposed changes under review for September 2025 Board presentation.

Category	Funding Programs	Objectives and Description	Provider	Program Status	Notes
Energy	Capital project: Construction of new sustainable municipal and community buildings	Commission and construct a new high-efficiency municipal or community building.	Green Municipal Fund	Year-round until September 15, 2025 for full capital applications; paused for new feasibility studies due to high volume.	Maximum Award: Combined grant and loan for up to 80% of eligible costs. Combined grant and loan up to a maximum of $10 million. Grant up to 15%** of total loan amount. Additional 5% grant available if the project involves the remediation of a brownfield site.
Energy	Municipal Energy Manager Program	The Municipal Energy Manager Program (MEM) offers staffing grants to municipalities in Alberta to offset the salary of an energy manager. The energy manager will work for a municipality to: develop an energy management plan, implement energy saving opportunities and realize energy savings. Additional funding is also available to support the implementation of energy management initiatives.	Municipal Climate Change Centre	December 2025 or earlier if fully allocated; late applications ineligible for full two-year funding (program at capacity post-February 2025).	The MCCAC will provide funding to successful municipalities for: Year One 80% of MEM salary up to a maximum of $80,000 per year. Up to $20,000 in rebates to support implementation of energy management initiatives. Year Two 40% of MEM salary up to a maximum of $40,000 per year. Up to $40,000 in rebates to support implementation of energy management initiatives. Year Two funding is contingent on the municipality meeting Year One program requirements.
Energy	Low Carbon Economy Fund	"Supports projects that reduce GHGs, generate clean growth, build resilient communities, create good jobs for Canadians. 4 streams: low carbon economy challenge; low carbon economy leadership fund; Indigenous Leadership Fund; Implementation Readiness Fun".	Government of Canada	Municipal streams currently closed due to demand (e.g. Leadership Fund); monitor for new intakes in 2026.	Varies by stream; up to $25M for large projects, cost-share 25-75%.
Transportation	Zero Emission Vehicle Infrastructure Program	The Zero Emission Vehicle Infrastructure Program (ZEVIP) provides funding toward the deployment of electric vehicle (EV) chargers and hydrogen refuelling stations across Canada.	Government of Canada	Closed for new direct applications; ongoing through third-party delivery organizations until March 31, 2027 (projects operational by March 31, 2026).	Maximum $5,000,000 with up to 50% of total project costs covered.