

EDMONTON'S DOWNTOWN SUSTAINABILITY STROLL

Sustainability and environment are not often the first words that spring to mind when people think of cities and downtown areas, but this tour highlights the sustainable initiatives that are happening in the heart of Edmonton.



1

LEADING THE WAY CITY HALL, CITY HALL ROOM

Starting this tour at City Hall is symbolic of how the city government is leading the way to a sustainable city. One way is through the adoption of Edmonton's Community Energy Transition Strategy, a risk management strategy designed to make Edmonton an energy and climate sustainable city. City Hall itself operates sustainably as a certified BOMA BEST® building. BEST stands for "Building Environmental Standards". Buildings are awarded this certification by the Building Owners and Managers Association (BOMA) based on the building's energy savings and best environmental practices.

HIGHLIGHTS:

- This building opened in 1992 on the site of the former City Hall. Parts of the old building were reused, such as the beige stone stripes of travertine on the floor.
- The two glass pyramids maximize natural light while minimizing the need for electrical lighting.
- Low flow toilets and faucets minimize water use.
- Direct access to the LRT station allows public and staff to use transit.

Exit the south doors of City Hall and walk to the stone cenotaph (monument) at the end of the wading pool.





2

SHIFTING GEARS CENOTAPH OUTSIDE CITY HALL

Look around. What do you see? On most days you will see lots of people. If everyone arrived here by car, not only would there not be enough parking spaces but those cars would be releasing tonnes of greenhouse gases into the atmosphere. In Edmonton, transportation already accounts for about 30% of our emissions. The Edmonton Transit System (ETS), made up of trains and buses, is just one of the alternative sustainable modes of transportation available. Lots of Edmontonians are choosing sustainable transportation modes—in 2023, there were 1.2 million rides on ETS per week, with ridership continuing to grow, and more people are using active transportation such as bicycles and e-scooters.

HIGHLIGHTS:

From this location you can see at least three different ways you could travel to all corners of Edmonton:

- Bus System—Edmonton has 5,257 bus stops and 953 buses.
- LRT (Light Rail Transit)—The Capital Line, which started full operations in 1978 with 6.9 km of track, was the first LRT system in Western Canada. In late 2023, the southeast
- Downtown Bike Network—In Edmonton's Bike Plan Implementation Guide 2021–2026, the City plans to construct or revamp

portion of the new Valley Line opened, adding 13 km of track and 11 street-level stops. The system continues to expand, with work currently underway on the west portion of the Valley Line and continuation of the south portion of the Capital Line.

678 km of bike routes. In 2017, the Downtown Bike Network was installed, which consists of over 7 km of protected bike lanes and shared-use paths. The network and the planned expansions will provide a safe and accessible route to downtown destinations and connect to other bike routes throughout Edmonton.

Walk to the southeast corner of this block, opposite the Art Gallery of Alberta. There is no need to cross the street unless you wish to explore the Art Gallery.





THE ART OF BUILDING GREEN ART GALLERY OF ALBERTA

The Art Gallery of Alberta, with its unique angles and curves, was inspired by the North Saskatchewan River and the Aurora Borealis. Leadership in Energy and Environmental Design (LEED) is a green building standard like BOMA BEST® that uses a point system to rate the environmental aspects of new buildings. Through LEED, construction companies are made aware of best environmental practices and results in the construction of buildings that use less energy, water and natural resources than conventional buildings. The Art Gallery of Alberta is currently working towards earning its certification.

HIGHLIGHTS:

- Internal access to the LRT results in more visits using sustainable transportation than by car.
- 90% of the steel used in its construction was recycled material.
- In 2024, as a step towards LEED certification, the boilers were replaced with significantly more efficient models, providing efficiencies in power and gas usage and running consistently at an even temperature for less wear and tear.
- The southern overhangs prevent overheating of the building in the summer but allow winter sunlight to enter.

Look to the block south of the Art Gallery of Alberta.



4



POWERING NET-ZERO DOWNTOWN DISTRICT ENERGY INITIATIVE

What's inside that mysterious box above the loading dock of Winspear Centre? Behind these walls, there is an energy centre providing centralized heating to buildings in our downtown core. The Downtown District Energy Initiative (DDEI) is part of the City of Edmonton's District Energy Strategy and started operations in September of 2025. Instead of relying on individual boilers, buildings access thermal energy through a centralized system connected through pipes. The first phase of the initiative provides space heating to the Winspear Centre (including its expansion), Century Place and Chancery Hall, and is planned to eventually connect up to 50 buildings downtown. The next phase will connect the Citadel Theatre, Stanley A. Milner Library and City Hall. The DDEI is delivered in partnership with EPCOR, and is a key component of the City's Climate Action Plan.

HIGHLIGHTS:

- Phase 1 serves a floor area of almost 62,000 sq. m through 1.2 km of distribution piping.
- Energy Centre is powered by five natural gas boilers including one back-up boiler, with a boiler system capacity of over 10 MW of thermal energy generation capacity. Natural gas is a cost-effective starting fuel for the utility, with greenhouse gas reductions achieved, mainly through operational efficiencies. In its first winter, the utility reduced carbon emissions by around 10 per cent. Lower-carbon sources can be added over time as the utility builds its customer base.
- Operating temperatures reach up to 90°C in summer, 104°C in winter, with a maximum allowable temperature of 121°C.
- At full build-out, which is expected by 2050, the entire utility has the potential to operate emissions-free.

Continue walking south to the east side of Sir Winston Churchill Square, opposite the Winspear Centre.





5

INSTRUMENT OF CHANGE WINSPEAR CENTRE

The Francis Winspear Centre for Music was designed with both acoustic excellence and energy efficiency in mind. Since opening in 1997, the building has incorporated a range of sound isolation and heat retention features that help reduce energy consumption while preserving the world-class acoustics the concert hall is celebrated for. In 2018, the Winspear Centre received a City of Edmonton Building Energy Benchmarking Excellence Award for its outstanding energy performance.

Today, the Winspear Centre is connected to Edmonton's growing District Energy system, supporting low-carbon heating in the downtown core and contributing to the city's broader sustainability goals.

HIGHLIGHTS:

- Heavily insulated walls and stairwells, rubber-sealed doors, and adjustable acoustic curtains and canopies help minimize heat loss and improve overall energy efficiency throughout the building.
- The District Energy plant is located on the upper level of the Winspear Expansion, while the energy transfer station that connects the District Energy piping system is located below grade.
- The energy infrastructure is separated from the concert hall by a four-inch structural gap designed to prevent sound and vibration transfer that could impact the hall's acoustics.
- A custom-engineered exhaust system was incorporated into the energy centre to meet the strict acoustic standards of the Winspear Centre.

Walk to the south side of Sir Winston Churchill Square, opposite the Stanley A. Milner Library. There is no need to cross the LRT tracks yet unless you wish to explore the library.





6

SHARING FOR SUSTAINABILITY

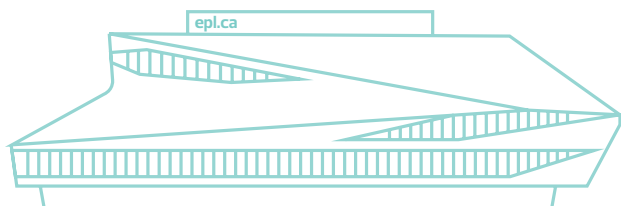
EDMONTON PUBLIC LIBRARY

With over 160,000 Edmontonians using the Edmonton Public Library (EPL) system regularly, it is a perfect example of a “sharing economy”. A sharing economy is the sharing of resources among many people. Years ago, farmers would work together at harvest time to share labour and equipment so that each farmer didn't have to buy a plow. Now you can find many examples of book, bike and even car sharing.

HIGHLIGHTS:

- The Stanley A. Milner Library renewal project received LEED-NC (New Construction) Silver certification in 2021. The building includes lighting and mechanical control system upgrades as well as an increased use of natural light.
 - Stanley A. Milner Library's Makerspace has computers, 3D printers, gaming consoles and even a sound booth, allowing people to create without having to purchase equipment of their own.
 - By switching to an energy efficient fleet of vehicles to transport books, fuel consumption was reduced by 60%.
 - Other LEED certified EPL buildings include The Lois Hole, Jasper Place, Highlands, Capilano, Calder and Millwoods Libraries.
 - Initiatives include energy efficiency, proximity to bus routes, water efficient landscaping and recyclable materials used during their construction.
- Other sharing opportunities:**
- Edmonton Tool Library—a library for hand and power tools! This library offers affordable access to tools and provides a space to share skills and knowledge.
 - Communauto (formerly Pogo CarShare)—a carsharing service that gives members 24/7 access to a pool of vehicles located within a defined, central zone in Edmonton.

Cross the Valley Line LRT at 102 Avenue. Continue south along 99 Street and cross Jasper Avenue. Turn east (left) and continue to the plaza and overlook between the Edmonton Information Centre and the Edmonton Convention Centre.





7

THE RIBBON OF GREEN THE RIVER VALLEY PARKS SYSTEM

The North Saskatchewan River Valley, known as the “Ribbon of Green”, covers 7,400 hectares and forms the largest municipally-owned urban park in North America. This area is a major ecological corridor across Edmonton and is critical to protecting biodiversity in Alberta. The City of Edmonton recognizes the importance of our park system and is continually acquiring more land while working to restore or improve areas it already owns.

HIGHLIGHTS:

- According to the Edmonton Biodiversity Survey, the river valley in Edmonton supports a wide variety of species:
 - » 47 mammals
 - » 178 birds
 - » 27 fish
 - » 180+ invertebrates (insects, spiders, etc.)
 - » 2 reptiles
 - » 5 amphibians
 - » 487 plants
 - » 221 fungi
- Edmonton's river valley supports natural processes like decomposition and seed dispersal, protects us from flooding and allows us to connect with the natural world.
- Urban forests provide benefits such as filtering our air, removing carbon from the atmosphere and reducing energy costs when providing shade and windbreak.
- Edmonton aims to have 20% forest canopy coverage by 2071 which is complemented by its ambitious goal to plant 2 million additional trees by 2030.
- In 2014, planting began for the City's first food forest in the river valley. You can eat locally and pick saskatoons, highbush cranberries, gooseberries, pin cherries and more.

Look to the east (left) at the Edmonton Convention Centre.





BETTER THROUGH BEHAVIOUR

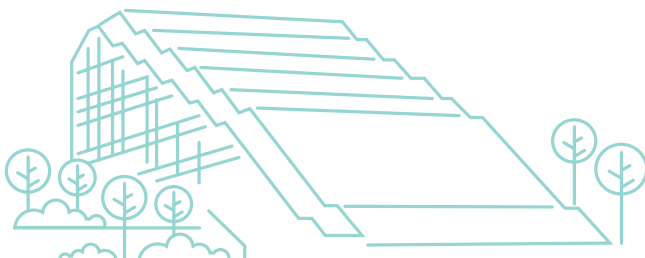
EDMONTON CONVENTION CENTRE

The Edmonton Convention Centre (ECC) is committed to leading the way for their industry in sustainable best practices. ECC continuously seeks new ways to reduce its environmental footprint while promoting green meetings and conferences. ECC's sustainable initiatives have earned a number of awards and certifications including the honour of being the first Canadian conference venue to receive the top rating of Green Key Level 5. The Green Key Eco-Rating Program is a graduated rating system designed to recognize hotels, motels, resorts and conference centres that are committed to improving their environmental performance.

HIGHLIGHTS:

- The plants in the atrium are responsible for the absorption of over 1,800 kg (4,000 lbs) of CO₂ a year.
- Three gardens on the property contribute to urban biodiversity: a medicine wheel garden featuring regional indigenous plants to honour Edmonton's Aboriginal community, an herb and vegetable garden that is kept by the kitchen staff and a monarch butterfly preservation garden. The gardens are pollinated by an urban beehive that produces over 20 kg (44 lbs) of honey per year.
- ECC is striving for the ambitious goal of reducing its waste sent to landfills by 90% by 2025.
- Throughout the year, the ECC donates all leftover meals to the Edmonton Food Bank's Second Helping Program. In 2019, it donated over 2,306 kg (4,243 meals) of food.
- The ECC has a large glass atrium and is built into the side of Grierson Hill. This allows it to be a "natural heat sink". The heat from the sun gets trapped, reducing the need for energy consumption for heating.
- The south-facing slope of the atrium has a solar installation that generates about 200 megawatt hours of electricity per year, reducing nearly 150 tonnes of GHG emissions. (Fun side note: Within the glass panels is an excerpt of a poem in Morse Code.)
- The reflective roof of Hall D, as well as the many terraced areas that act as green roofs, help reduce heating and cooling needs of the building.

Turn back to Jasper Avenue but don't cross it. Look across the road a little to the east (right) to see the Hotel Alberta/CKUA building with the white cupola, or dome, on the corner.





REBUILDING HISTORY

HOTEL ALBERTA / CKUA

Another important environmental action is the reuse of objects and materials. This building is a perfect example of reuse. In 1984, the building was removed to make room for Canada Place but thankfully, much of it was saved and it was rebuilt in 2011.

HIGHLIGHTS:

- The stone exterior of the original building was taken apart piece by piece, numbered and put into storage.
- Many of the interior decorations such as bar mirrors and plumbing fixtures were saved as well.
- It now houses CKUA, Canada's oldest public educational broadcasting station.
- The basement holds a collection of 275,000 vinyl records going back to the 1920s and Edison discs dating back to 1912. For the first time, this educational resource is kept in a climate-controlled space.

Turn west (left) and walk down Jasper Avenue from the direction you came, until you are in front of the Fairmont Hotel Macdonald. (2.5 blocks)



10



GREEN HOSPITALITY

THE FAIRMONT HOTEL MACDONALD

The Fairmont Hotel Macdonald has been operating on the bank of Edmonton's river valley since 1915 and is doing its part to lead the way in sustainability within the tourism industry. Water conservation in hotels can make a big impact in both the environment and dollar savings. Water accounts for about 10% of utility bills in many hotels. Of the water used, on average, 34% is used in the guest rooms and 17% in just doing laundry. Depending on their water efficiency, hotels can reduce the amount of water consumed per guest per night by up to 50% compared with establishments with poor performance in water consumption.

HIGHLIGHTS:

- Fairmont Hotel Macdonald has a Green Key Eco-Rating of Level 4, with Level 5 being the highest rank—not bad for a building built in 1915.
- The building has been refitted with low-flow toilets, faucets and showers, and not only does it offer the option to not wash your towels and linens every night, it offers eco-friendly cleaning.
- Sustainable transportation is encouraged through free parking with access to a charging station for Electric Vehicles as well as offering bike rentals. Other EV charging stations within Edmonton can be found on websites such as PlugShare.com.

Continue west on Jasper Avenue and turn north (right) on 101 Street. Walk north until you cross 102 Avenue. Stop on the corner and look at the building kitty-corner (diagonally) across the street.





FROM GREY TO GREEN MANULIFE PLACE

This building is Manulife Place and, like numerous other buildings downtown, is a BOMA BEST® certified building. What makes this building unique is its green roof. Note: This green roof is accessible only to those who work in the building, and urban birds. On a green roof, you will typically find 8 to 30 cm (3 to 12 inches) of soil with vegetation, usually grass, growing on the surface. Green roofs provide a green natural area for people to gather, serve as nesting habitat, control runoff during heavy rains, contribute to climate resiliency and have many other benefits:

- Green roofs last almost twice as long as a traditional roof, reducing costs and waste from re-roofing.
- Green roofs improve energy efficiency by protecting the building from heating in the summer and minimizing heat loss by providing insulation in the winter.
- By trapping dust particles, heavy metals and compounds, and absorbing them into the green roof system, the plants and soil help reduce smog and improve air quality.
- The use of reflective roofing materials and green roofs can increase our climate resiliency by reducing temperature increases from the Urban Heat Island (UHI) effect.

HIGHLIGHTS:

- Manulife Place has energy efficient lighting, water saving faucets and fixtures as well as bicycle parking.
- High performance glazing on the windows let in the maximum amount of daylight while minimizing heat entering the building. This reduces the need to turn on extra lights or air conditioning.

Continue east on 102 Avenue, back towards City Hall. Cross 100 Street and stop on the corner of Sir Winston Churchill Square.





TYING IT TOGETHER SIR WINSTON CHURCHILL SQUARE

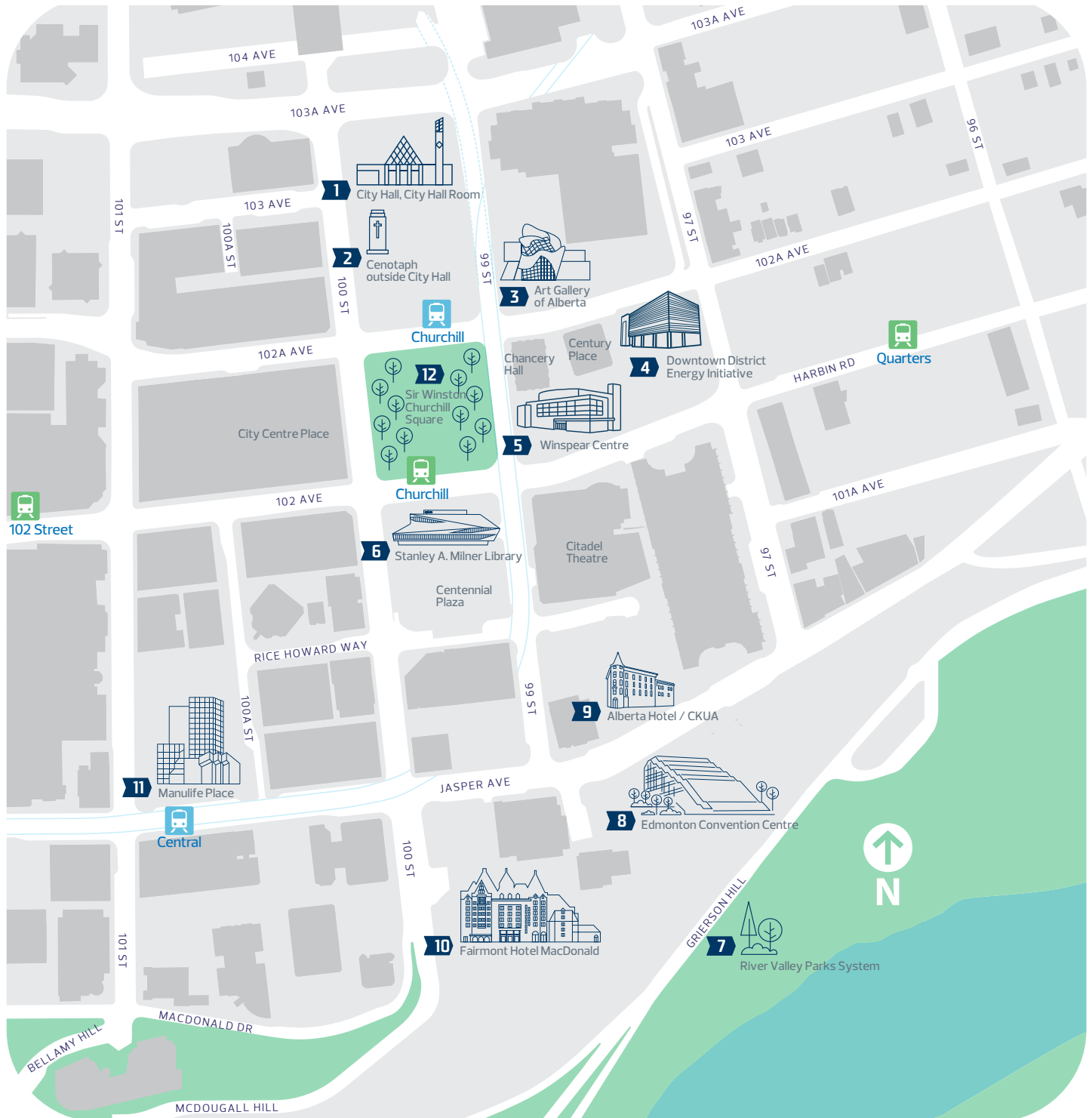
We are now back in the center of the city, the center of the hustle and bustle. As we have seen throughout this walk, all of this activity impacts the environment.

City Council has set a goal for Edmonton to be a city transitioning to a low-carbon future, that has clean air and water and is adapting to a changing climate. A variety of City programs have been developed to reduce dependence on non-renewable energy sources and to protect the air, land, water and biodiversity in the Edmonton area.

One such program is Change for Climate, which is a call to action to all Edmontonians to reduce our greenhouse gas emissions and prepare for a changing climate. On the web page, changeformclimate.ca, you can find links to a spectrum of actions with suggested ways that residents can reduce their impact, inspiring stories of Edmontonians taking action and programs available to support climate action.



DOWNTOWN SUSTAINABILITY STROLL MAP



This tour starts and finishes at City Hall and is approximately 2 km.

Remember that there are areas in some of these buildings that are for tenants only and are not public spaces. Please refrain from trespassing and stay in the public areas.

A GREENER EDMONTON

As you can see, many businesses, organizations and groups in the downtown area are passionate about working towards a sustainable future. We hope some of the things you learned on this tour will inspire you to take part in some way in this goal and help to create the healthy urban environment that contributes to the quality of life for everyone in Edmonton and beyond.

Thank you for participating in the Edmonton Downtown Sustainability Stroll. We hope you enjoyed the information, the exercise and the adventure.

RELATED WEBSITES

Art Gallery of Alberta
youraga.ca

City Hall
edmonton.ca/cityhall

District Energy
edmonton.ca/districtenergy

Edmonton Convention Centre
edmontonconventioncentre.com

Edmonton Public Library
epl.ca

Fairmont Hotel Macdonald
fairmont.com/macdonald

Hotel Alberta & CKUA
dubarchitects.ca/alberta-hotel

Manulife Place
manulifeplace.com

River Valley Parks System
edmonton.ca/rivervalleyparks

Winspear Centre
winspearcentre.com

GET INVOLVED

Edmonton's Change Habits for Climate Guide
edmonton.ca/ChangeForClimateGuides

Green Leagues
efcl.org/initiatives/green-leagues

JOIN THE MOVEMENT

Get tips, information and the latest on incentives and programs at changeforclimate.ca

City of Edmonton – Environment

Phone: 311 (in Edmonton),
780-442-5311 (outside of Edmonton)

Website: changeforclimate.ca