

EXPLORE

EDMONTON'S

CARBON REDUCTION

PLAN 2024

REFLECTION OF 5-YEARS & MORE

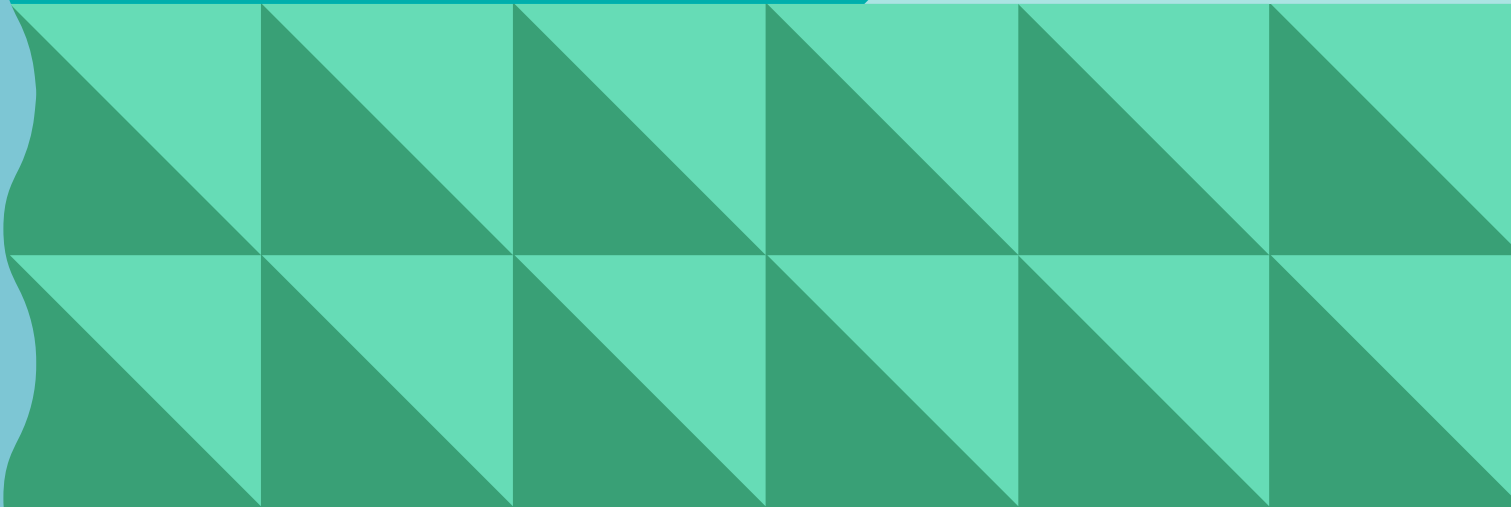


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A WORD FROM OUR PRESIDENT & CEO

June, 2024

I am pleased to present Explore Edmonton's Greenhouse Gas (GHG) Inventory Report for 2023. This comprehensive report highlights our commitment to environmental sustainability and showcases our efforts to reduce our carbon footprint. As a key player in Edmonton's tourism and event industry, we recognize the importance of sustainable practices and their impact on our community and environment.

Throughout 2023, we implemented various strategies to minimize our GHG emissions, focusing on energy efficiency, waste reduction, and promoting sustainable transportation. Our team has worked diligently to track and analyze our emissions, ensuring transparency and accountability in our sustainability journey. The data presented in this report reflects our dedication to continuous improvement and our alignment with global sustainability goals.

We invite you to review the findings of this report and join us in our mission to create a greener, more sustainable future for Edmonton. Together, we can make a significant difference and set a positive example for other organizations in our industry.

Sincerely,

EXPLORE EDMONTON



Traci Bednard
President & CEO

Edmonton's destination development approach is increasingly focused on sustainable and purposeful growth. In major venue operations and destination management and marketing work, Edmonton is striving to ensure regenerative tourism development is at the forefront. This means prioritizing practices that not only sustain but actively improve the environment, economy, and community well-being. At Explore Edmonton, we consider sustainability as one of our pillars of excellence.

This report highlights Explore Edmonton's commitment to sustainability and the strides that we have made in reducing our carbon footprint. Continued exploration and adoption of sustainable technologies and innovations is an integral part of our approach to decarbonization. This year, we have achieved significant progress through the implementation of several key innovations which are referenced throughout the report.

One of the unique initiatives has been the integration of the ORCA, an aerobic food digester at both the Edmonton EXPO Centre (EXPO) and the Edmonton Convention Centre (ECC). This technology has revolutionized our venues' approach to food waste management. By breaking down organic waste on-site, the ORCA digester reduces the volume of waste sent to waste handling facilities and thereby decreases the transportation related emissions. It also eliminates the chances of organic waste ending up in the landfills which significantly reduces a major greenhouse gas i.e. methane gas.

Our facilities rehabilitation work continued through 2023 and into 2024. These projects include significant progress on energy conservation and efficiency measures, HVAC improvements and the continued expansion of Explore Edmonton's renewable energy generation capacity.

These are just a few examples of the comprehensive approach Explore Edmonton is taking to address environmental sustainability. This report details our progress and next steps as we remain committed to our 2035 and 2050 reduction targets.

ABOUT THIS REPORT

EXPLORE EDMONTON & THE VENUES

As the premiere Destination Management and Marketing Organization (DMMO) for Edmonton, **Explore Edmonton** holds a vital position in shaping the city's visitor economy. The Edmonton Convention Centre (ECC) and Edmonton EXPO Centre (EXPO) are the cornerstone venues of Explore Edmonton's portfolio. Each of these award-winning facilities share the same vision, goals and values of the Explore Edmonton Corporation (EEC) but have distinct features within themselves. Both venues hold certifications from BOMA BEST, Green Key Global and Climate Smart and are recognized as 'On the Road to Zero Waste' facilities.

Recognized as one of the North America's top five performing venues, **Edmonton Convention Centre** has been a centerpiece of Edmonton's commercial district for the past four decades. Spanning 150,000 square feet, this venue hosts many business events, concerts and competitions. ECC's design emphasizes sustainability, leveraging its location on Grierson Hill to act as a natural heat sink. The venue features numerous sustainable elements, including a sloping glass atrium adorned with 696 photovoltaic panels, a substantial indoor plant collection for air purification, public-facing environmental monitors, a beehouse, aerobic food digester (ORCA), source separation of waste and much more.

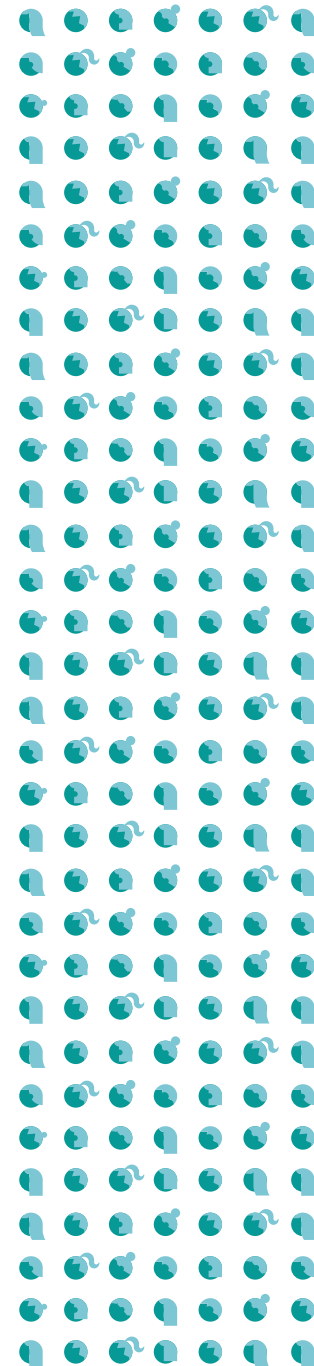
The **Edmonton EXPO Centre** is a 522,000-square-foot facility established in 1984 and expanded in 2009 and is proud to be the largest of its kind in Western Canada. Hosting renewable energy, EXPO is home to the largest rooftop solar array in Canada. This venue space is designed for grand-scale events, that range from colossal trade shows to live entertainment and sporting events, conferences and beyond, welcoming thousands of guests at a time.

Both the venues are currently undergoing a rehabilitation process budgeted for over a hundred million dollars. This project includes renewing roofs, windows and mechanical systems, as well as structural and electrical upgrades all aimed at significantly enhancing the buildings' insulation and making them more sustainable. Finally, The **World Trade Centre** is an office space where a team of brilliant and creative minds thoughtfully collaborate to create a unique identity for Edmonton. While WTC does not host events, the daily operations at the offices do contribute to the company's GHG emissions. To address this, our team has implemented various strategies described throughout this report.

2023 AT A GLANCE



1,076,000
EVENT ATTENDEES
WELCOMED AT EXPO

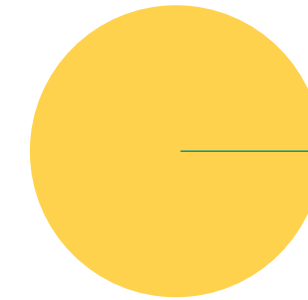
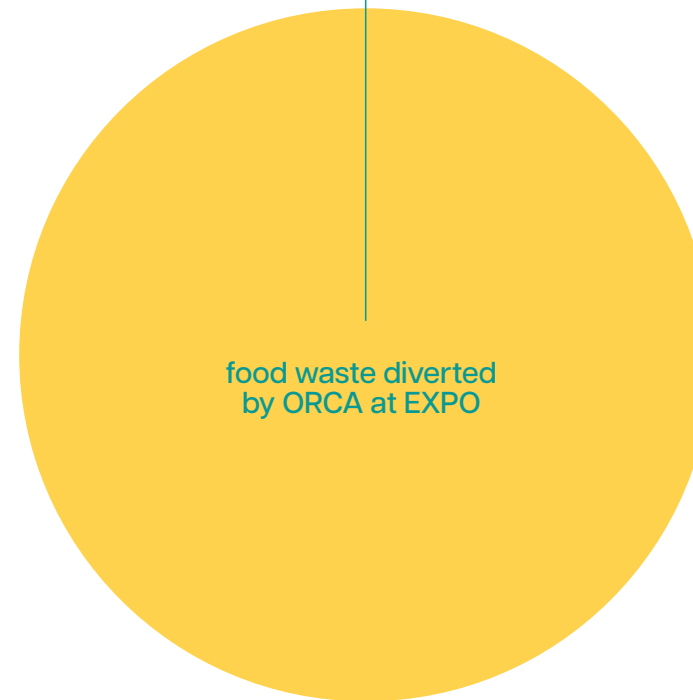


EVENTS
PARTICIPATING
IN RESPONSIBLE
EVENTS PROGRAM

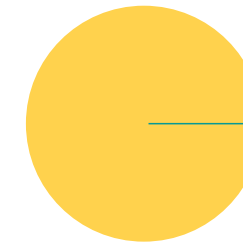
51% WASTE DIVERTED FROM
LANDFILL BY ECC 

 **58%** WASTE DIVERTED FROM
LANDFILL BY EXPO

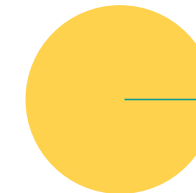
20,233KG



7,135 KG
food donations by EXPO



5,801 KG
left-over items
recirculated into
Edmonton communities

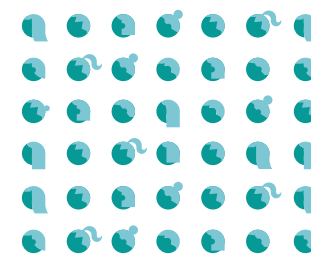


2,312 KG
food donations by ECC



646 KG
food waste diverted
by ORCA at ECC

265,923
EVENT ATTENDEES
WELCOMED AT ECC



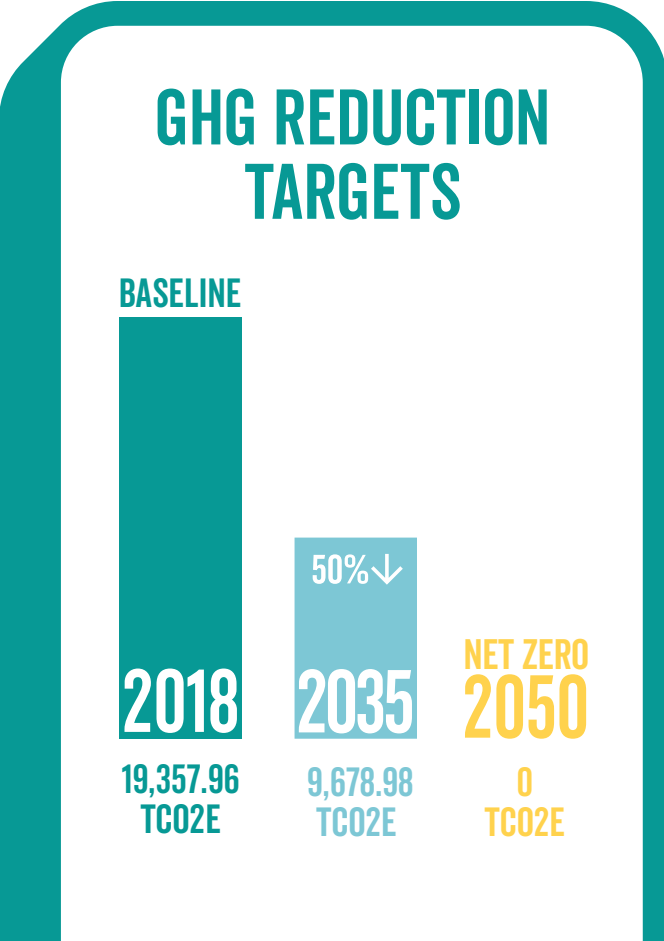
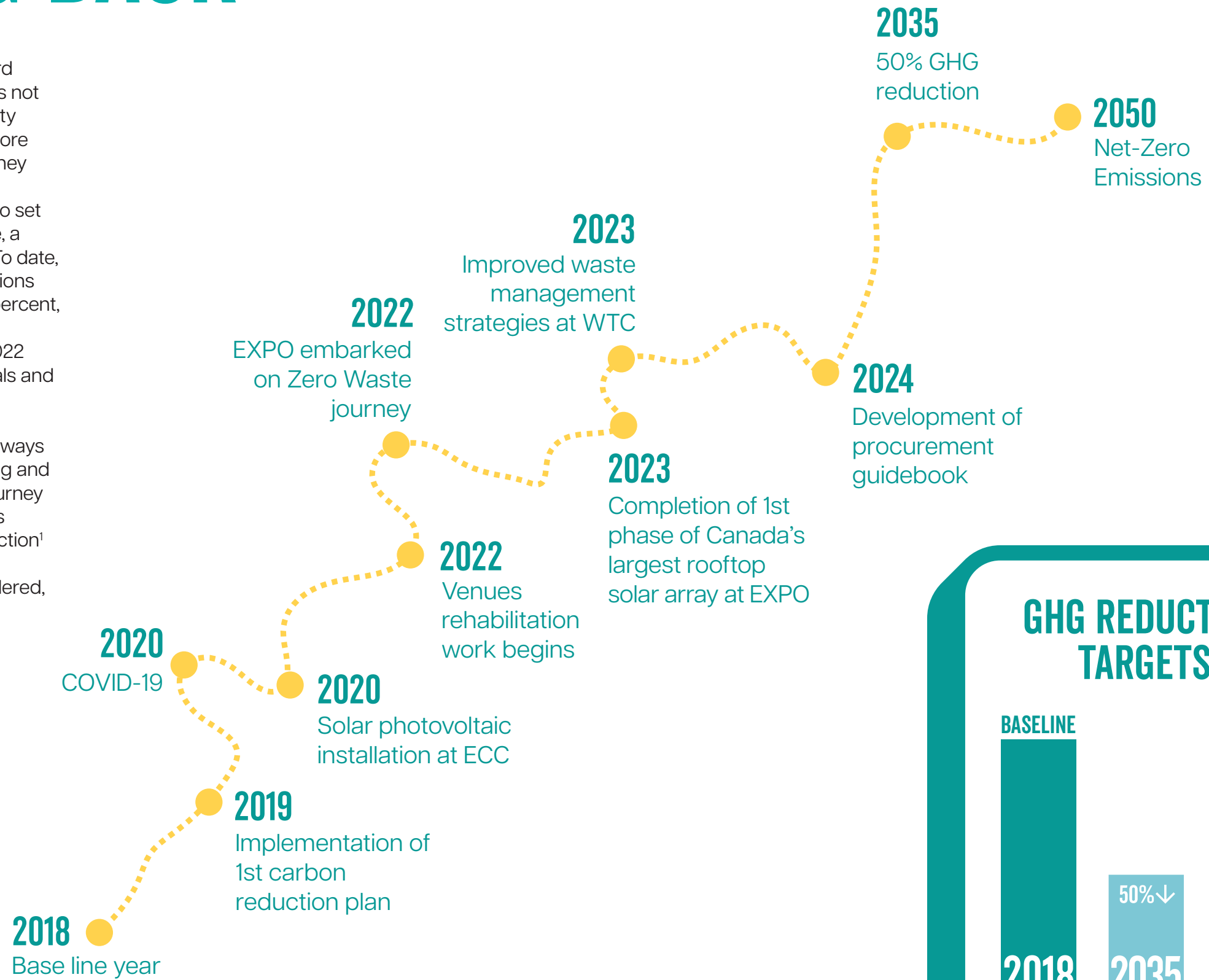
285 TCO2E
CORPORATE
CARBON
OFFSETS

1,811 TCO2E
CARBON OFFSETS THROUGH
CARBON NEUTRAL EVENTS

LOOKING BACK

Explore Edmonton's journey toward greenhouse gas (GHG) reduction is not a new endeavor. While sustainability has always been a part of the Explore Edmonton culture, our formal journey began post-2018 when we began tracking our GHG emissions data to set a strategic road map for the future, a sustainable future for Edmonton! To date, Explore Edmonton's carbon emissions have been slashed by almost 30 percent, a milestone originally set for 2035. However, given our progress, in 2022 we revised our GHG reduction goals and now aim for Net-Zero by 2050.

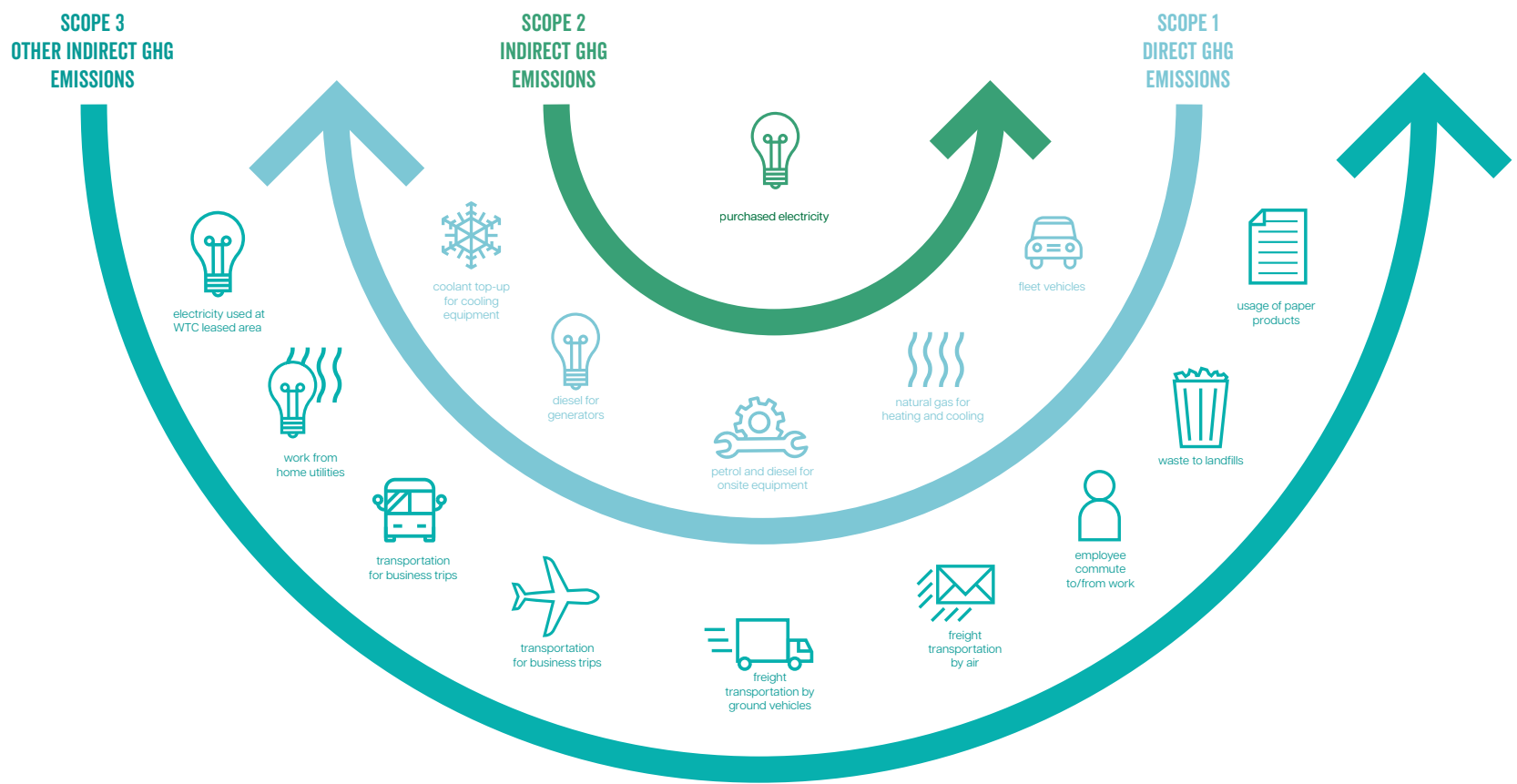
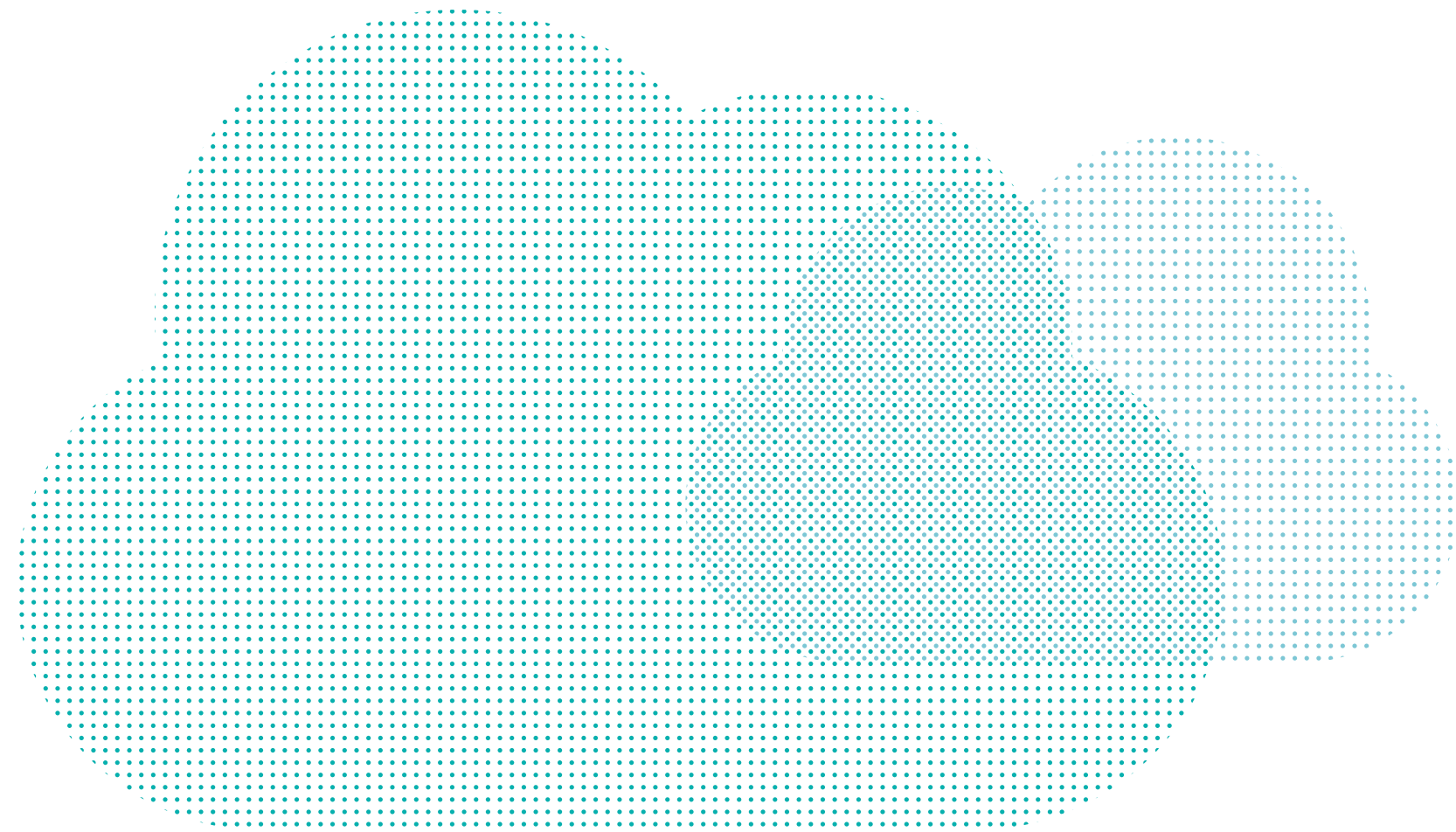
Successes and challenges have always served as opportunities for learning and inspiration. Explore Edmonton's journey to Net-Zero didn't come without its challenges. Refining our data collection¹ process took years of effort and continuous improvement is considered, year-over-year.



METHODOLOGY

Each year, Explore Edmonton tracks GHG emissions from the venues' operations and head office. Explore Edmonton's GHG emission reduction efforts contribute directly to the United Nations' **Sustainable Development Goals** (SDGs). The data collection, quantification, and reporting align with the **Greenhouse Gas Protocol** Corporate Accounting and Reporting Standard, which is internationally recognized standard by World Resource Institute and the World Business Council on Sustainable Development. The ECC, EXPO and the offices at the WTC all have slightly different operations and scopes elaborated in the later sections of this report.

Emissions are categorized as Scope 1, 2, and 3 based on the degree of operational influence over each emission source. The figure shown reflects the different emission sources we report on, while the data collection approach has been outlined in appendix 1.



¹Appendix 1 – Data collection approach

SDGs



= Direct Impact to GHG Reduction



= Climate Mitigation



= Climate Adaptation

EXPLORE EDMONTON



CARBON OFFSETTING

Purchasing offsets for corporate emissions and carbon neutral events through the Responsible Events Program enables us to invest in carbon reduction projects. (Direct Impact to GHG reduction)



SUSTAINABLE TRANSPORTATION

We advocate for more efficient transportation to and from our venues during events and business travel through our implementation of electric vehicle charging stations, bike parking, business travel policy, etc.



WASTE REDUCTION

Goal of making our venues Zero-Waste facilities requires and promotes resource conservation and waste diversion. (Direct Impact to GHG reduction, climate mitigation)



URBAN AGRICULTURE

The Edmonton Urban Farm provides opportunity for active community engagement; to learn about and contribute to local sustainable food resourcing and security. (Climate Adaptation)



DONATIONS

We partner with several organizations to recirculate left-over food and reusable items in the community, and also collaborate with events on unique social give back opportunities through various offerings of the Responsible Events Program.



ENERGY EFFICIENCY

Our energy management plan includes energy conservation, energy efficiency improvements and building control measures that help reduce energy use. By harnessing clean, renewable, solar energy at our venues, we reduce our demand for procured energy.



PROCUREMENT POLICY

Our recent work on procurement guidebook will help in prioritizing purchases and vendors that not only focus on cost and quality but also environmental and social sustainability.



SUSTAINABLE BUILDINGS

Both the venues are BOMA BEST and Green Key Certified which ensures best practices in the buildings.



OUTREACH, AWARENESS AND COLLABORATION

Community outreach like Capital City Clean-up, hosting tours of the ECC, public speaking, partnering with schools for projects, etc., allow us to team up with the community and create awareness on the climate change issues.



ENVIRONMENTAL DATA SHARING

Releasing our environmental performance publicly through reports, online platforms, and ECC's monitoring wall raise awareness and inspires others to act responsibly.



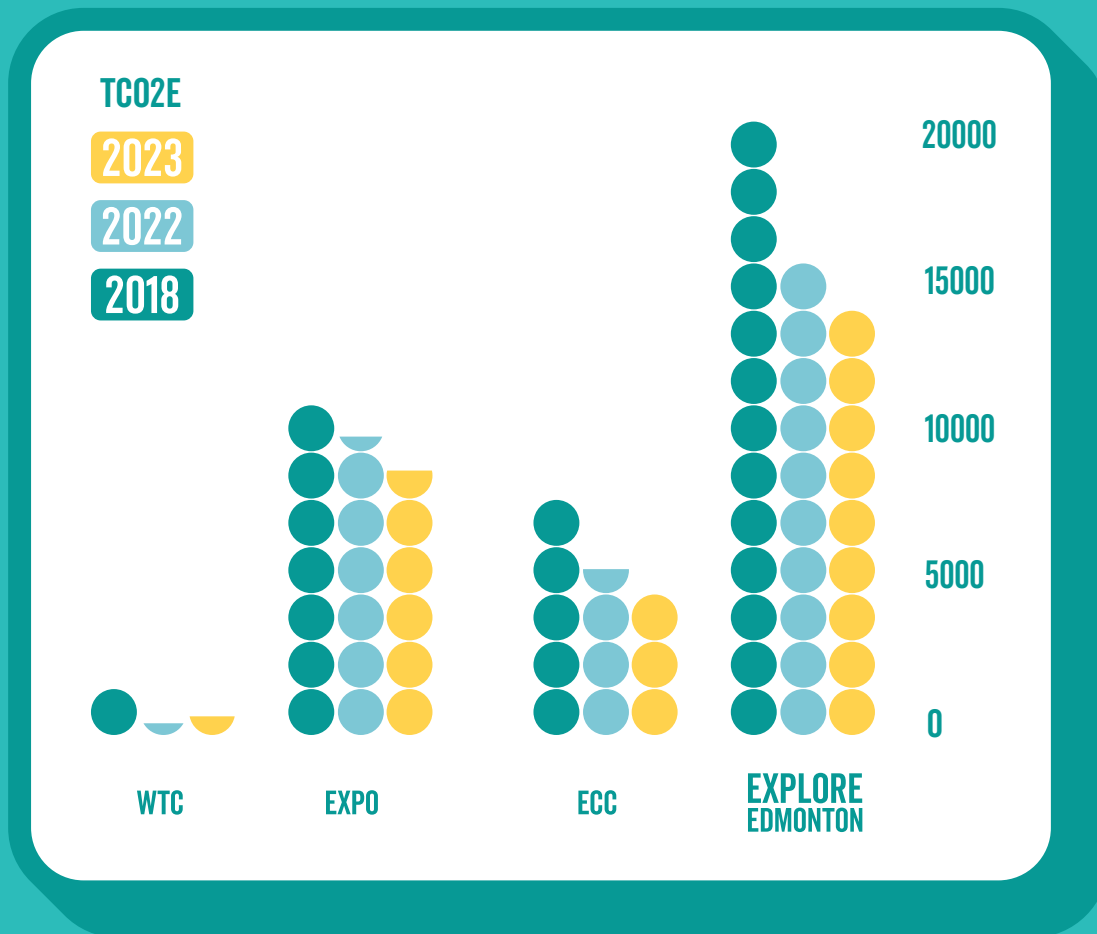
CARBON FOOTPRINT



HIGHLIGHTS ↘

Explore Edmonton's activities contributed to **13,671.65 tCO2e** in 2023. The ECC, EXPO, and WTC generated 4609.29, 8411.03, and 651.33 tonnes of carbon dioxide equivalent, respectively.

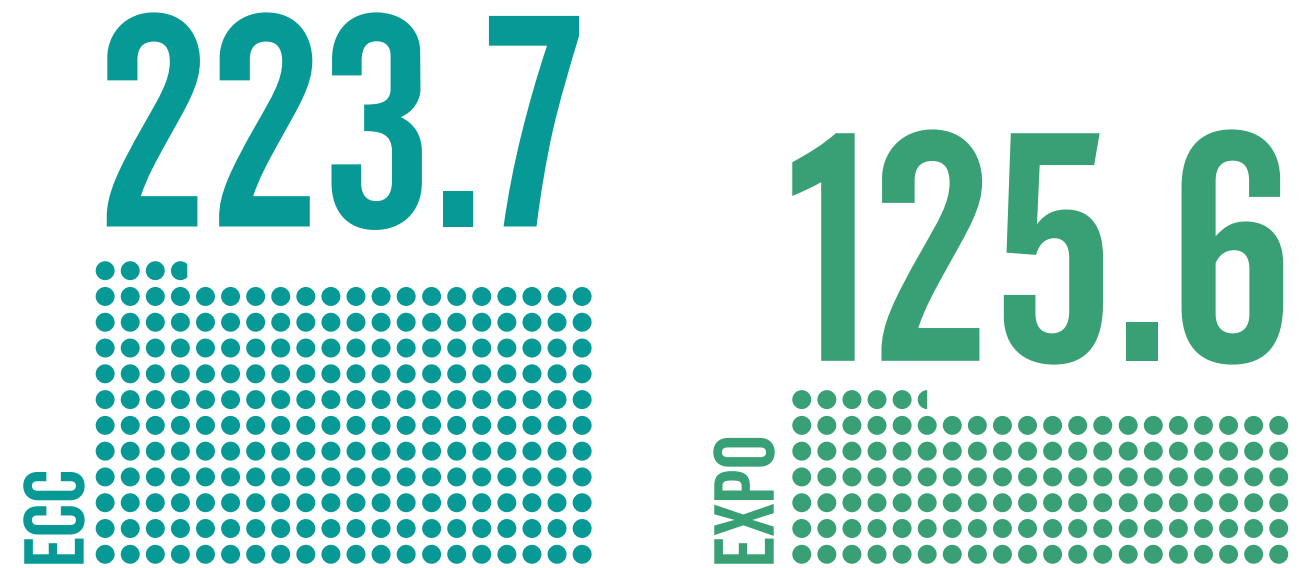
Both the event venues have achieved an 11 percent reduction in emissions the from previous year. Some of the other highlights are as follows:



Overall 29.4% GHG reduction from baseline and 9.4% from previous year.

²The detailed GHG figures are provided in Appendix 2

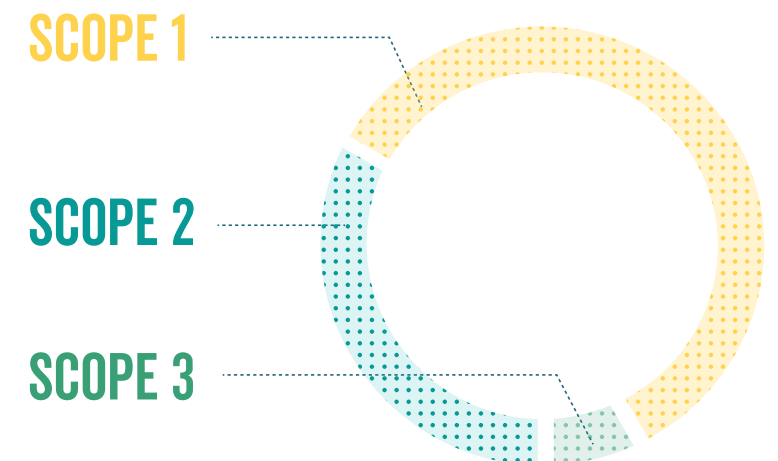
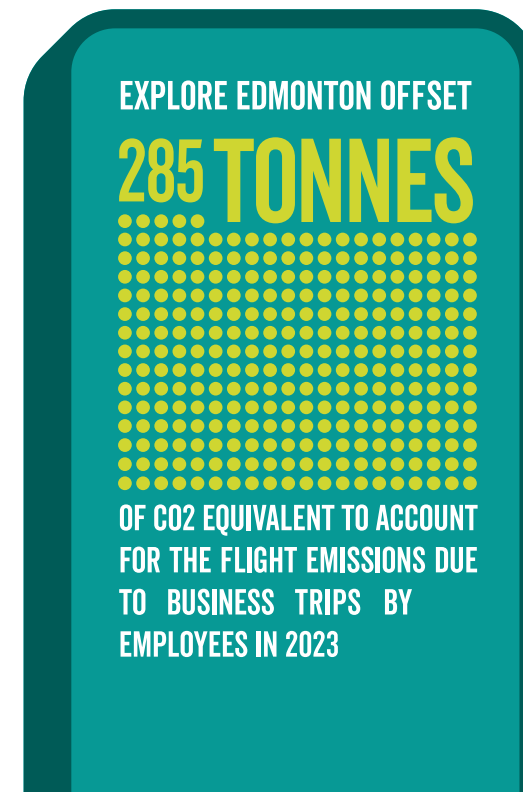
EMISSION RELATED TO OCCUPANCY OF THE VENUES



tCO2e/ million occupied sq. ft.

In 2021, Explore Edmonton implemented an intensity metric to express its GHG emissions per occupied square foot, providing a standardized measure to account for fluctuation in emissions relative to organizational activity and growth. This approach enables year-over-year emissions comparisons while considering variations in event frequency, office operations, maintenance and rehabilitation activities at the ECC and the EXPO.

BREAKDOWN BY SCOPES



INSIGHTS

Examining the 2023 emissions, some distinct variations can be noted:

- There was about a 28 percent reduction in emissions from heat generation at the ECC. This decrease is likely due to reduced demand and the new heating boilers.
- Significant savings in electricity and heat consumption at EXPO were observed, which can be attributed to the work completed in the rehabilitation project.
- There has been a steady improvement in reducing emissions from refrigerant releases at the venues. Specifically, emissions at EXPO decreased by nearly 95 percent compared to the previous year. This success can be credited to increased diligence, refrigerant monitoring and the replacement of some of the older units.
- Fuel consumption by on-site equipment at the EXPO centre saw a significant rise, possibly attributable to heightened demand from a greater number of events. Furthermore, there was a shift towards conducting more work in-house rather than outsourcing it to the contractors.
- The WTC's overall emissions soared and a major part of it came from transportation related to business trips. In 2023, the frequency of business trips by employees rose as the event industry recovers from the COVID-19 pandemic. Additionally, we were able to retrieve receipts for all ground travel to incorporate into the

“The building normally operated on at least one boiler year-round and last summer was the first time we had no heat in the building for an extended period. 2024 will set a new baseline for consumption with the new hot water heating boilers, we no longer use steam for heating.”

Dan Wilm, Director, Facilities and Engineering, Edmonton Convention Centre

ONGOING CARBON REDUCTION PROJECTS

Strategy	ECC	EXPO	WTC	Company Wide
LED Lighting	💡	💡		
Solar Panels Phase II		☁️		
Pipe insulation	🌀	🌀		
Installation of variable frequency drives	🌀			
Energy measurement and verification plan with NAIT Capstone	💡📖	💡🤝		
Building and operating efficiency with Capital City Pilot project	💡☁️			
Transportation of goods with eco-friendly shipping companies			☁️	
Recycling of soft plastics	🗑️			
Installation of weather stripping		🌀		
Upgrade roof insulation		🌀		
Hand dryers		🗑️		
Electric vehicle charging station		☁️		
Transition to sugar sheet or recycled paper				🗑️
Flower beds for bee hotels		🌿		
Creating a sustainable procurement guide				🌿
Sustainability action campaigns				📖
Sustainability training				📖
High-efficiency hot water tanks	💡			
Hot water condensing/high efficiency boilers	💡	💡		
Paper reduction campaign				📖
Waste Assessment			🗑️	
Collaboration on waste reduction activities			🗑️🤝	
Carbon offsetting of travel emissions from staff's business trips				🌿
Transition to rechargeable batteries				🗑️

💡 ENERGY 📖 EDUCATE 🌀 HEAT 🤝 COLLABORATION 🗑️ WASTE ☁️ EMISSIONS 🌿 ENVIRONMENT

*yellow icons represent 90%-100% project completion

QUICK TRASH UPDATE

To reach the objective of Zero Waste, we are presently enacting diverse waste management tactics at the venues. One such measure involves transitioning office paper to **sugar sheet paper** derived from sugar cane fiber and **recycled paper**. For every two boxes of paper, this change is projected to save 1 tree and over 20 kg of GHG emissions.

The EXPO Centre has installed over **25 hand dryers** in the public-facing washrooms across the facility. With the remaining few installations scheduled for 2024, this initiative is expected to eliminate more than three million sheets of 50 percent recycled paper towel, thereby conserving over 150 trees and ultimately reducing about 66 tonnes of carbon dioxide equivalent each year.

Lastly, to support the [City of Edmonton's waste reduction Bylaw](#), both ECC and EXPO **transitioned to reusable and/or compostable alternatives** in order to phase out the single-use items.

25 HAND DRYERS
INSTALLED AT EXPO



TRANSITION TO
REUSABLE &
COMPOSTABLE
ALTERNATIVES



TRANSITION TO SUGAR PAPER



LOOKING AHEAD

Explore Edmonton has a grand vision of Net-Zero emissions by 2050. In line with this commitment, the implementation of phase II rooftop solar panels at the EXPO Centre will commence in the upcoming years.

In 2023, Explore Edmonton took another significant stride forward by introducing Edmonton's Regenerative Tourism Strategy (RTS), envisioning a regenerative and resilient visitor economy in Edmonton by 2050. The first pathway of the strategy emphasizes decarbonization and sets forth various goals including decarbonizing the visitor economy to increase climate resilience. In the upcoming period, Explore Edmonton will work with the city to track the emissions of the visitor economy and create a carbon reduction roadmap. This approach will enable the application of carbon reduction strategies and insights from our corporate platform to the broader industry level.



APPENDICES

APPENDIX 1: DATA COLLECTION APPROACH

Scope 1:	Direct GHG Emissions - Sources controlled by the company
Electricity	Diesel used by generators -purchase receipts
Heat	Natural gas for heating and cooling – utility bills
Equipment	Petrol and diesel for onsite heavy and light equipment – fuel logs
Transportation	Petrol used by fleet vehicles on site – purchase receipts
Refrigeration	Coolant top-up for cooling equipments – internal reporting
Scope 2:	Indirect GHG Emissions – Generation of purchased electricity consumed by the company
Electricity	Purchased electricity - utility bills
Scope 3:	Other Indirect GHG Emissions – An optional reporting category that accounts for other indirect emissions that exist upstream or downstream in the company’s operation
Electricity	Electricity used at WTC leased area – building management company
Electricity & Heat	Work from home utilities – companywide survey
Ground Travel	Employee transportation for business trips – purchase receipts and gas mileage reports for personal vehicles
Air Travel	Employee transportation for business trips – report from travel agent and purchase receipts
Ground Shipping	Freight transportation by ground vehicles – invoices
Air Shipping	Freight transportation by air - invoices
Staff Commuting	Employee commute to/from work - company-wide survey
Waste	Waste to landfills – weights from waste service provider
Paper	Usage of paper products – invoices/ vendor reports

APPENDIX 2: GHG EMISSIONS 2023

Scope	Source	ECC	EXPO	WTC
1	Electricity (Generated)	1.61	138.37	N/A
1	Heat (Generated)	1257.46	2789.16	135.38
1	Light Equipment	0.28	15.8	N/A
1	Heavy Equipment	0.15	48.93	N/A
1	Refrigeration	34.89	2.17	N/A
1	Fleet Transportation	N/A	40.58	N/A
2	Electricity (Purchased)	3211.37	5050.96	N/A
3	Electricity (Unmetered/Ubilled)	N/A	N/A	179.87
3	WFH Electricity	2.35	3.08	10.47
3	WFH Natural Gas Heat	1.56	7.31	4.84
3	Ground Travel	0.5	21.15	13.5
3	Air Travel	13.48	11.55	236.41
3	Ground Shipping	N/A	N/A	4.63
3	Air Shipping	N/A	N/A	21.36
3	Staff Commuting	42.67	94.78	36.34
3	Waste	29.74	100.04	5.78
3	Paper	13.23	66.96	2.76
3	Light Equipment	N/A	1.19	N/A
3	Heavy Equipment	N/A	19.01	N/A
	TOTAL	4609.29	8411.04	651.34

EXPLORE EDMONTON

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