

EDMONTON'S YEAR 3 BUILDING ENERGY BENCHMARKING REPORT. □

Publication Date: October 2020

**CHANGE
BUILDINGS**
FOR CLIMATE

Edmonton



Reducing our building emissions is an important pathway for Edmonton's transition to a low carbon future.

The City of Edmonton is thrilled to release the Year 3 report of the Building Energy Benchmarking (BEB) program. Edmonton's commercial and institutional buildings currently contribute to around 19 per cent of our city's greenhouse gases. Therefore, reducing our building emissions is an important pathway for Edmonton's transition to a low carbon future. As one of the first Canadian municipalities to introduce an energy benchmarking program, the BEB program's continued success can be attributed to Edmonton's entrepreneurial business community that is willing to take the investment risk and seize the economic opportunities as our city mitigates climate change.

As businesses continue to identify energy efficient building changes that save them operational costs, they are also diversifying Edmonton's economy. For the future prosperity of our city, it's important for our environmental priorities to align with our economic objectives. An investment by Edmonton's building owners today to understand and reduce their energy use is setting the stage for a more diverse and resilient local economy. This local economy can help attract and retain a skilled workforce that fulfills our aspiration to become a city of 2 million people.

For Year 3, the BEB program has seen a 38 percent growth in private building participation. The program has also maintained a participant retention rate of between 80 to 86 percent year-over-year. These metrics indicate the strong stakeholder understanding and need for energy benchmarking as they make significant strides to optimize their energy use as a mechanism to reduce their business' costs. While doing so, they are helping create the demand for new building materials and technology that can be sourced and used locally.

The City of Edmonton buildings are also partnering in this local transformation. Between Year 2 and Year 3 of the BEB program, we have almost doubled our buildings participating in the program. As we continue to grow our own participation in the program, we endeavour to continue working with our community partners to audit, report and reduce our energy use as more of our buildings get rehabilitated.

Together with our other commercial programs that include [Building Energy Retrofit Accelerator](#) (BERA) and [Corporate Climate Leaders Program](#) (CCLP), the BEB program is an important step forward for Edmonton businesses to show leadership through a just, equitable and prosperous energy transition. As we launch Year 4 of Edmonton's Building Energy Benchmarking program, the City of Edmonton hopes that you continue to support Edmonton's energy transition programs to prepare for a low carbon future.

Stephanie McCabe
Deputy City Manager,
Urban Form and Corporate Strategic Development

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PROGRAM OVERVIEW

BUILDING ENERGY BENCHMARKING IN EDMONTON YEAR 3

In 2017, the City of Edmonton launched a voluntary building energy benchmarking program to help lay the foundation for Edmonton's transition to a low-carbon, sustainable energy future by making building energy performance information accessible to interested stakeholders. In this third year of the program, 278 buildings across Edmonton participated, up from 83 in Year 1. As a part of Edmonton's Community Energy Transition Strategy, the program compiles and compares annual whole building energy consumption across Edmonton's large building stock and uses this information to benchmark building energy performance, facilitate energy efficiency improvements and greenhouse gas (GHG) reductions.

WHAT IS BENCHMARKING?

The process of comparing a building's energy and emissions performance to similar buildings, and to itself over time.

PROGRAM DEVELOPMENT & PROCESS

The City of Edmonton's Building Energy Benchmarking Program was developed to collect information on a building's energy use patterns relative to similar building types which can lead to action being taken to reduce energy consumption and GHG emissions. The program generates valuable data on Edmonton's building energy performance and energy saving opportunities.

Participants use ENERGY STAR Portfolio Manager to enter building characteristics and energy use data. Benchmarking building energy consumption starts with the "energy usage intensity" (EUI) metric, which is the energy use for the whole building for one year divided by building area. Data is typically normalized or adjusted to remove weather effects and other building variables (e.g. anomalies in energy use, operating hours, vacancy, etc.) to account for any marked differences between buildings. The ENERGY STAR Score is a metric for comparing a property to other similar properties, normalized for climate and operational characteristics.

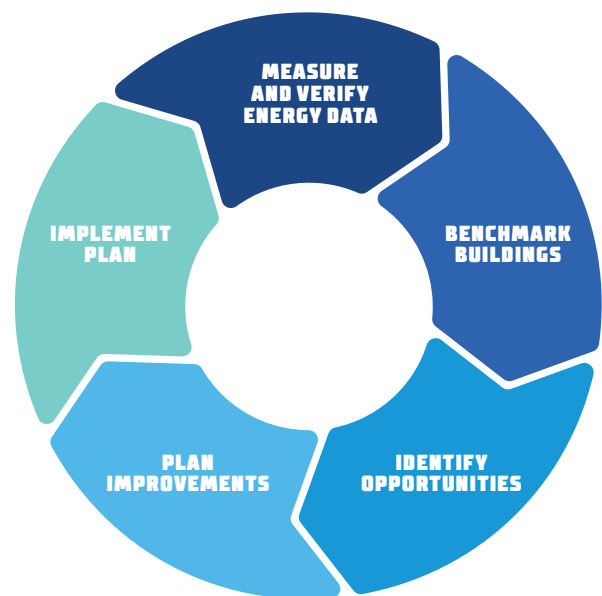
BENEFITS

The benefits of benchmarking include identifying opportunities to save both energy and money. Through benchmarking, participants can see where their building is performing efficiently and where the implementation of energy efficiency measures can save them money. Efficient buildings can boast higher rental premiums and higher value in the sales market. In addition to saving money and increasing property values, energy efficient buildings have significant climate benefits as they emit fewer greenhouse gases.

MOVING FORWARD

As Edmonton continues to grow, the need to reduce our carbon footprint remains a key goal of the City. In order to achieve our goal of reducing energy use and limiting GHG emissions, more energy efficient commercial buildings will need to emerge. This will require participation across the spectrum of commercial buildings to reduce their energy use and that begins with benchmarking.

AN ENERGY MANAGEMENT PROCESS THAT INCLUDES BENCHMARKING





PARTICIPANT OVERVIEW

In Year 3 of the City of Edmonton's Building Energy Benchmarking Program, the number of properties that participated increased by 57%. 249 properties¹, representing 278 individual buildings, were submitted to the program by 37 organizations. These buildings cover a gross floor area of 3,451,000 sq m which is equivalent to 12% of the floor area identified by the City's Building Stock Analysis.² Overall, 280 unique properties have taken part in the program.

Participation Summary: Years 1 to 3

	Year 1	Year 2	Year 3
Properties	83	159	249
Buildings	99	184	278
Primary Property Uses	20	30	37
Floor Area (sq m)	2,017,000	2,763,000	3,451,000
Organizations	21	30	36

Program retention has remained very high, with 86% of Year 2 buildings also participating in Year 3.

In addition to the substantial increase in participation, Year 3 was successful in several other areas as well:

- Diversity of Properties:** Year 3 properties represented 37 different properties end-uses such as offices, libraries, colleges, retail stores, and many more. Offices, multi-unit residential buildings (MURBs), multiplexes, and fire stations made up the majority of the property types.
- Number of Categories:** In Year 2, the various property end uses were amalgamated into nine broad categories. A lot of the properties were placed in the "Other" category as they had no comparables (e.g. a museum) or because the sample size was too small. In Year 3, in addition to having a diverse building stock, the sample size for all categories grew substantially. Due to the increase in sample size of previously incomparable properties, five new distinct categories have been added, bringing the total number of comparable categories to 14.
- Sample Size of Categories:** Offices, multi-unit residential buildings, and garages and service yards were three of the largest categories with 30+ properties per category. The residential buildings category grew by more than 50% in Year 3.
- Retention:** The program has maintained a consistently high participant retention rate. 81% (i.e. 67) of the properties that participated in Year 1 of the program have participated in all three years. Also, 86% (i.e. 136) of the Year 2 properties successfully took part in the Year 3 program.

¹ Some properties may include more than one building (multi-building property)

² City of Edmonton conducted a building stock analysis as part of the program development process that identified 4,435 buildings over 20,000 SQF covering a total 29,101,000 m²

BUILDING CATEGORIES

ENERGY STAR Portfolio Manager offers users over 80 different Property Use Types to choose from when describing the activities in their building. If a single property use type accounts for more than 50% of the buildings Gross Floor Area (GFA), then that is considered the Primary Property Type and is used to form the peer comparison group of similar buildings.

Year 3 participants submitted properties representing 37 different primary property uses. This year, in addition to having a diverse building stock, the sample size for each category grew larger as well. Due to the increase in sample size of previously incomparable properties, we were able to further break down existing categories, as well as add completely new ones. For example, we divided the Education category from Year 2 into three new distinct categories: College / University, Vocational / Adult Education, and K-12 School. Examples of completely new categories include fire stations, police stations, and transport stations.

The 14 categories are described below, with new-for-Year-3 categories being marked with an asterisk (*).

1. Office – Offices and Financial Offices
2. Garages, Service Yards, Warehouses* – Non-Refrigerated Warehouses, municipal garages, service yards, and some waste management facilities
3. Multi-Unit Residential Buildings (MURBs) – Apartments, condominiums, and long-term residence buildings
4. College / University *
5. Multiplex – Buildings that are predominantly Fitness Centers, Health Clubs and Gyms
6. Fire Station *
7. Vocational / Adult Education* – Predominantly training schools, learning centres, community colleges
8. Arena – Buildings that are predominantly Ice or Curling Rinks
9. Library
10. Police Station *
11. Transport Station* – Light rail transit (LRT) stations
12. K-12 School *

13. Retail – Enclosed malls and strip malls

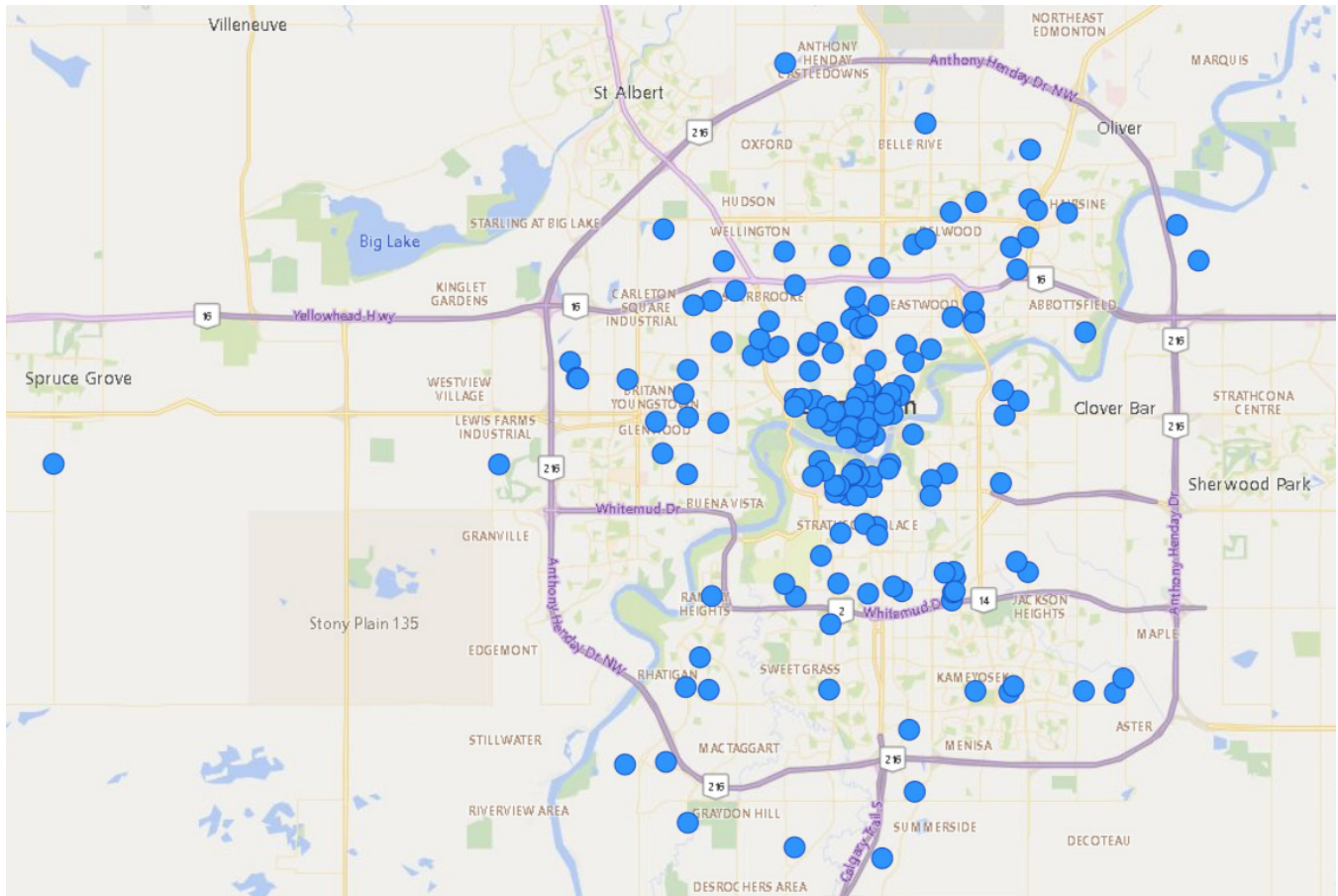
14. Other – Various cultural, light industrial, and municipal/provincial government buildings that do not fit into any of the other categories (e.g. museums, hostels)

The table below shows the number of properties and the sum of gross floor area for each category. Offices are the largest participant category in Year 3, followed by garages, service yards, and warehouses. The third largest category is multi-unit residential buildings which grew by more than 50% in Year 3.

Participating Properties by Category

Categories	# of Properties	# of Buildings	Sum of Gross Floor Area (m ²)
Office	51	57	1,037,600
Garages, Service Yards, Warehouses*	34	37	309,100
MURB	31	34	341,000
College / University*	17	17	424,800
Multiplex	14	14	183,100
Fire Station*	14	14	20,200
Vocational / Adult Education*	13	28	287,500
Arena	13	13	42,311
Library	11	11	48,000
Police Station*	6	6	57,900
K-12 School*	6	6	34,700
Transport Station*	5	5	31,400
Retail	4	4	123,100
Other	30	32	510,700
Grand Total	249	278	3,451,400

LOCATION OF PROPERTIES PARTICIPATING IN YEAR 3



This map shows how organizations and buildings across the city are participating in the Building Energy Benchmarking Program.

PARTICIPANT OVERVIEW

CITY OF EDMONTON

The City of Edmonton led by example in the Building Benchmarking Program by submitting 109 properties (114 buildings), almost double of what it submitted last year. These properties were diverse and included libraries, multiplexes, light rail transit (LRT) stations, and other municipal infrastructure buildings. The complete list of categories and their sizes are shown in the table below. Year 3 saw substantial participation increase in garages, service yards, warehouses, fire stations, and police stations.

City Buildings Participating in Each Building Category

Category	# of Properties
Garages, Service Yards, Warehouses	26
Fire Station	14
Arena	13
Multiplex	12
Library	11
Police Station	6
Transport Station	6
Office	5
Vocational / Adult Education	1
Other	15
Total	109


YEAR-OVER-YEAR ANALYSIS

The high participant rate allowed the City to analyze year-over-year energy use statistics and trends for the program participants. 136 properties participated in both Year 2 and 3. More than half showed reductions in weather-normalized energy use intensity (EUI) in Year 3 compared to the previous year. In other words, the energy efficiency performance of the buildings improved. 67 properties have participated in all three years of the program. 43 of them (65%) improved their energy efficiency consistently year over year. The table below shows the average and median percentage changes in the participants' weather normalized EUI. On average, returning Year 2 participants reduced their EUI by 2.4%. Properties that have participated in all three years reduced their EUI by 6.2% on average.

Year-over-Year Changes to Energy Use Intensity

	Y1 to Y2 Change	Y2 to Y3 Change	Y1 to Y3 Change
Average	-2.7%	-2.4%	-6.2%
Median	-2.5%	-2.6%	-7.5%

Reductions in energy use cannot be directly attributable to benchmarking, and are instead a result of specific operational improvements or equipment upgrades. However, the year-over-year results presented here suggest that benchmarking is a key organizational best practice that can help identify opportunities for energy performance improvements, and motivate building owners and operators and implement efficiency projects.

A photograph of a modern building with a curved facade. The left side of the building has a light-colored, metallic-looking paneling, while the right side is a dark glass curtain wall reflecting the sky. A teal-colored geometric overlay is positioned in the center, containing the text. In the foreground, there is a landscaped area with a green lawn, a concrete walkway, and a small fountain or water feature. The sky is a clear, bright blue.

ENERGY PERFORMANCE RESULTS

ENERGY PERFORMANCE RESULTS

WHY WE INTRODUCED AN ONLINE DASHBOARD FOR YEAR 3

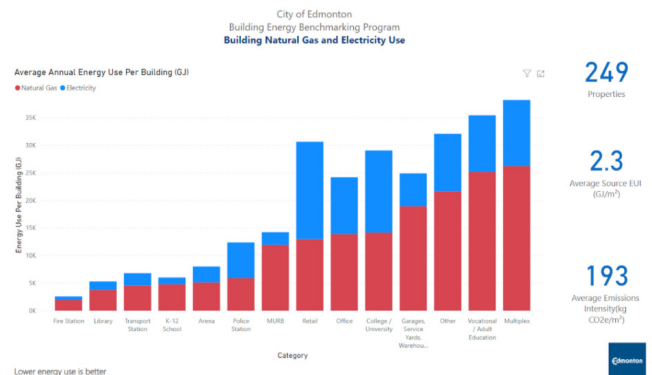
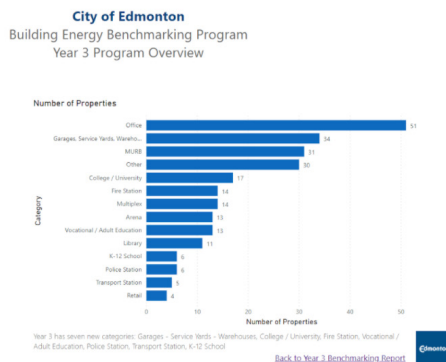
As we move forward with the Benchmarking program, and add more buildings over time, we realized that the report may be too long for participants to effectively use in their decision making. So we explored the opportunity to create a more interactive method to share building energy performance data.

In response to the need for a more useful tool to look at building energy use data, this year, we have created an online interactive dashboard that allows users to quickly and easily explore the results of the benchmarking program with building level data and broad category information.

WHAT TO USE THE DASHBOARD FOR

We encourage you to [explore this tool](#) to quickly download individual building results, to compare category and building information and to supplement the Year 3 Report.

For the most current year's dashboard, visit: edmonton.ca/energybenchmarkingdashboard



BUILDING SHOWCASES

NORQUEST
COLLEGE
SINGHMAR CENTRE
FOR LEARNING

UNIVERSITY OF ALBERTA

The University of Alberta has 13 buildings participating in Year 3 of the Benchmarking Program. This represents 266,500 m² of space comprising offices, laboratories, as well as learning and teaching spaces. The University of Alberta is unique in that it uses a District Energy System (DES) to provide power, chilled water, steam and other miscellaneous utilities to the university's North Campus and several external customers. A district energy system produces thermal and electrical energy at a central plant. Underground piping and wiring distribute this energy to individual buildings in a defined area. At the U of A, the DES is fueled by natural gas, incorporates co-generation and supplies all the heating and cooling to North Campus, as well as a portion of North Campus electricity use. It uses free cooling, non-peak production and thermal energy storage to reduce the energy need for cooling. The DES helps the U of A avoid approximately 60,000 tonnes of GHGs annually.

The Energy Use Intensity (EUI) of the buildings at the U of A is wide ranging (1.33 to 3.72 GJ/m²), and is dependent on the type of activities that are undertaken in each building.¹ Higher EUI in certain buildings, particularly those that are engaged in research, is often due to the energy intensity of research activities and not necessarily a function of building performance.² Other considerations with research buildings that can lead to increased energy use include long operating/occupancy hours compared to a typical office or commercial buildings, stronger need for building system reliability, and stringent health and safety requirements that can compete with energy performance. Despite these challenges, the U of A is committed to reducing energy consumption as much as possible and has a longstanding energy management program to support this commitment.

The University of Alberta has put policies in place to improve building sustainability and reduce their overall

energy use. They have a set of Design Guidelines that guide construction and renovation projects, with sustainability being a component of those guidelines. The U of A also uses three different green building certification programs to manage construction and operations. New buildings that receive provincial government funding must meet or exceed LEED Silver certification, while for other new buildings and major renovations, Green Globes is often used. For operations and maintenance of existing buildings, the U of A participates in the Portfolio Stream of the BOMA BEST Sustainable Buildings certification program. Other sustainability initiatives on campus include maintaining a GHG emissions inventory and water management plan, a zero waste program, Campus Sustainability Grants, an in-house "Green Spaces" certification program, and various other programs to promote sustainable practices on U of A campuses.



Triffo Hall

- 1 Other factors such as building age, retrofits, building size, etc. may impact the building EUI.
- 2 The building stock at the University of Alberta is very unique and diverse. This creates a larger variability in the Energy Use Intensity (EUI) and emissions for the university owned and operated buildings. For instance, a building engaged in research at the University of Alberta has much higher Energy Use Intensity (EUI) and emission footprint than that of a typical office building. Currently, the 13 University of Alberta buildings that participate in Edmonton's benchmarking program are housed under the "college/university" category. Therefore, the larger variation in EUIs for participating University of Alberta buildings may impact the average benchmarking results such as average source EUI, average source emissions per building, etcetera for the "college/university" category. The City of Edmonton may explore other relevant building categories in Year 4 of the program that consider the uniqueness of a participant's building stock.

UNIVERSITY OF ALBERTA (continued)

University of Alberta Building Certifications and Awards

Building Certifications & Awards	
Arts and Convocation Hall	BOMA BEST (Gold)
Assiniboia Hall	BOMA BEST (Silver)
Athabasca Hall	BOMA BEST (Silver)
Cameron Library	BOMA BEST (Silver)
Centennial Centre for Interdisciplinary Science	LEED (Silver for New Construction and Major Renovations) BOMA BEST (Gold)
Edmonton Clinic Health Academy	LEED (Silver for New Construction and Major Renovations) BOMA BEST (Gold) 2014 award from BOMA Edmonton - The Outstanding Building of the Year (TOBY) award

Building Certifications & Awards	
Natural Resources Engineering Facility	BOMA BEST (Gold)
Physical Activity And Wellness Centre	Green Globes (4 Globes)
Students' Union Building	BOMA BEST (Silver)
Timms Centre for the Arts	BOMA BEST (Silver)
Triffo Hall	LEED (Gold for New Construction and Major Renovations) BOMA BEST (Gold) 2016 award from BOMA Canada - The Outstanding Building of the Year (TOBY) award (historical category)
University Hall	Green Globes (3 Globes) BOMA BEST (Gold)

BOARDWALK

Boardwalk is a national company that offers quality rental spaces for people and businesses in the Edmonton area. They have participated in the Building Energy Benchmarking Program for all three years it has been offered and have been leaders in demonstrating how they value social responsibility in the operation and maintenance of their rental properties.

This year, they have over 2 million square feet of space benchmarked in the Multi-Unit Residential Building Category representing 23 different buildings. The buildings in their portfolio were built between 1963 and 1977 with a range of EUIs (Energy Use Intensity) between 0.72 and 2.22 GJ/m². The national median EUI for MURBS is 1.48 GJ/m². Boardwalk has the highest numbers of buildings in the MURB category and this involvement demonstrates their commitment to sustainability and an understanding that one of the first steps in lowering energy use is energy benchmarking.

WHY HAVE YOU PARTICIPATED IN THE PROGRAM FOR 3 YEARS?

In today's marketplace, superior energy management is a significant competitive advantage, but to effectively manage your energy consumption, first you must understand it. As a leader in the Real Estate business, Boardwalk decided to participate in the City of Edmonton's Benchmarking program to:

1. identify poorly performing buildings
2. establish a baseline for measuring improvement in energy consumption for all buildings
3. enhance and create competition through comparison with like buildings
4. participate in green building certification programs and various other environmental initiatives



Boardwalk Property: Tower on the Hill

RETROFITS YOU HAVE DONE OR INTEND TO DO THAT WILL IMPROVE ENERGY EFFICIENCY?

Boardwalk's commitment to energy conservation is founded on investing in initiatives to decrease its emissions. Initiatives include, but are not limited to, building envelope improvements, high efficiency boiler upgrades, attic and roof insulation upgrades, furnace replacement and upgrades, LED light fixtures and bulbs and Energy Star appliances.

As it relates to water consumption, Boardwalk installs low flow faucets, showerheads and toilets, and focuses on utilizing irrigation systems and rain-water recycling programs, where possible, to meet its landscaping needs.¹

COMMITMENT TO SUSTAINABILITY?

Boardwalk is committed to responsible energy, gas and water management, as part of an overall environmental sustainability strategy while maintaining operational goals and providing exceptional working and living environments for our Associates and Resident Members.

Recognizing the role which Real Estate has in climate conservation, we see an opportunity to decrease our carbon footprint. Moving forward, we will focus our efforts on our communities with the highest GHG intensity ranking along with our continued attention on water conservation and waste minimization.

In 2020, Boardwalk committed \$1M through our internal Sustainability Committee towards green initiatives in Canada, with the main objective of decreasing our carbon footprint.

ANY OTHER COMMENTS ABOUT YOUR COMPANY GOALS, VALUES THAT MAKE BENCHMARKING IMPORTANT?

The building energy performance benchmarking is a foundational element of our organization's energy management strategy because you can't manage what you don't measure. Across our portfolio, we aim to make this practice a standard operating procedure as energy costs and associated environmental and sustainability issues have raised awareness around the importance of energy management.

¹ Water conservation is currently not included in the BEB program.

TRIOVEST (9925 BUILDING)

The 9925 Building is a 276,237 sf, 12-storey office building, constructed in 1977 and is managed by Triovest. The building has participated in all three years of the Benchmarking program and has shown a decrease in EUI for each year of the program. Year 1 saw an EUI of 1.89 GJ/m², down to 1.53 in Year 2 and 1.34 in Year 3 representing a 29.1% decrease over 3 years. In 2018, their energy use intensity of 1.34 GJ/m² had them 11.2% below the national median for this building type (1.55 GJ/m²). The 9925 Building is BOMA BEST Platinum certified.

Triovest is a company committed to sustainability and has a mission to “create sustainable places that enhance communities and enrich relationships”. Their sustainability strategy aims to realize some key benefits including to create healthy, inspiring and innovative workspaces, to deliver superior building performance through decreased operational costs, and to influence positive change through their actions. Triovest has 4 buildings as part of the Year 3 cohort. The primary intent of this sustainable program is to increase awareness on all levels of operations sharing industry knowledge with their peers, understanding incentives and taking advantage of the low cost no cost modifications as well as identifying through building scans and learning workshops the potential improvements for their sites.

WHY HAVE YOU PARTICIPATED IN THE PROGRAM FOR 3 YEARS?

The City of Edmonton’s BEB program was an opportunity to engage with peers in our industry to see how we were performing in direct relation to our local industry. It allowed us to gather with our industry peers and share knowledge and successes around sustainable practices.

As a direct result of participation in this program, we continually raise our awareness of the next level opportunities and planning for future improvements. We have achieved BOMA BEST Platinum certification which is no small feat for a building of this era (built 1977) and shows the results of a full team effort from all levels of management from the owners on down.

RETROFITS YOU HAVE DONE OR INTEND TO DO THAT WILL IMPROVE ENERGY EFFICIENCY?

Retrofits done recently include:

- Boilers were recently upgraded to high efficiency RBI Futura
- BMS systems are constantly upgraded to achieve benefits for systems trending and schedule programming- once systems are in place, can achieve low/no-cost scheduling changes
- LED motion sensor lighting technology installed in the parkade and common stairwells
- Completed installation of a full building lighting management program
- HVAC-VAV boxes and Heating control systems 80% converted to digital controls and connected to the BMS
- Floor plate lights upgraded to LED style lighting

COMMITMENT TO SUSTAINABILITY?

Through programs like BEB, BOMA and EEA Cohort programs, we engage all levels of management and operations to increase sustainability awareness and training amongst all team members. Triovest has a strong National Sustainability Team which gathers knowledge from all areas of the country, shares this knowledge and prepares programs and policies that benefit all areas of the country. We do regular tenant engagement to demonstrate our successes and ask for input so our programs align with tenant expectations.



Triovest 9925 Building

SHOWCASES

CITY OF EDMONTON FIRE STATIONS

The City of Edmonton operates 30 fire stations that are strategically located throughout the city. Some of these sites support fire and EMS services, while others are also used for training purposes. Most operate 24/7, 365 days a year. This year, the station with one of the best EUIs was the station at Heritage Valley (No. 28), a 15,000 sf building built in 2015, with an EUI of 1.51 GJ/m², which was a 8.5% improvement from the previous year and 32% better than the national median for fire stations at 2.21 GJ/m².

The Jasper Place Fire Station (No. 4), which was built in 1982 and is 13,000 sf, had an EUI of 2.11 which was 4% better than the national median EUI. In order to improve its building energy performance, this fire station had solar panels installed in early 2019 to meet 25% of its electricity needs. This will further reduce the imported energy needed and reduce EUI in the future.

The City's 31st fire station in Windermere, is scheduled to be built between 2022-2024 and has been designed to be LEED Silver, to have 40% better energy efficiency, with 40% less GHG emissions than the current standard. The design of the station won a Canadian Architect Award of Excellence and incorporates solar PV, geothermal heating and cooling, optimization of natural lighting and other design elements to reduce the energy consumption of the building. The City of Edmonton continues to work towards more efficient buildings and continual improvement of existing ones.



Rooftop and side of Jasper Place Fire Station



A modern office interior with a prominent blue and teal color scheme. The space features curved, metallic-looking walls and a large, open-plan area. In the background, there are desks with computers and people working. The foreground shows a curved staircase with a glass railing. The text "WHAT'S NEXT" is overlaid in a large, white, sans-serif font on a teal geometric shape.

WHAT'S NEXT

AWARDS

The City of Edmonton would like to recognize and acknowledge all Year 3 participants. The annual recognition of participants through our awards is intended to demonstrate top performers in various categories and acknowledge improved and sustained building energy performance. The program aims to highlight leadership in not only energy performance, but in understanding that the first step to decreasing energy use, is to create awareness. The creation of a peer group with similar sustainability goals is a valuable networking tool for shared learning. We will share the findings of the data analysis as well as performance and leadership awards in a virtual environment in the following categories:

HIGHEST PERFORMING OFFICE CATEGORY

Winner: Commerce South Office Park – Building B – Bentall Kennedy Canada

Runner-up: ATCO Centre – Triovest Realty Advisors

HIGHEST PERFORMING MULTI-UNIT RESIDENTIAL BUILDING CATEGORY

Winner: Redwood Court – Boardwalk Rental Communities

Runner-up: Student Residence Building – MacEwan University.

HIGHEST PERFORMING COLLEGE / UNIVERSITY CATEGORY

Winner: Heritage Tower / Singhmar Centre for Learning – NorQuest College

Runner Up: Assiniboia Hall – University of Alberta

HIGHEST PERFORMING K-12 CATEGORY

Winner: Elves Special Needs Society – Aenergy Capital

Runner-up: MAC Islamic School – Aenergy Capital

BEST OVERALL ENERGY PERFORMANCE

Winner: Learning Resources Centre – Alberta Infrastructure

BEST YEAR-OVER-YEAR

Winner: Redwood Court – Boardwalk Rental Communities (55% YOY energy reduction)

Runner-up: HI-Edmonton – Hostelling International – Canada (21% YOY energy reduction)

BEST MULTI-YEAR IMPROVEMENT

Winner: HI-Edmonton – Hostelling International – Canada (35% Y1-Y3 improvement)

Runner-up: 9925 Building – Triovest Realty Advisors (29% Y1-Y3 improvement)

LEADERSHIP IN TRANSPARENCY AWARD

Winner: Boardwalk Rental Communities (23 properties)

Runner-up: University of Alberta (13 properties)

PLANS FOR YEAR 4 AND BEYOND

RECRUITMENT

The City of Edmonton is looking to continue our community's strong engagement and participation in the Benchmarking program for Year 4 and beyond. By signing up for the Building Energy Benchmarking Program, participants will join a group of industry leaders that are working to understand the energy and greenhouse gas impacts and performance of their buildings and incorporate this into decision making.

Year 4 participants are asked to register for the program by October 22, 2020 and submit energy data by November 15, 2020.

EVALUATION

The Building Energy Benchmarking Program began as a 3-year pilot and, as we move forward into Year 4, we will continue evaluating the program to consider opportunities to expand and support market transformation objectives in the commercial building sector. The key performance indicators to assess program impacts include:

- Participation rates and diversity
- Participant/non-participant awareness and satisfaction
- Impacts on participant behaviour and actions
- Data quality and effectiveness of the benchmarking tools
- Energy and GHG impacts
- Market transformation contributions
- Program delivery processes and reporting

CALL FOR PARTICIPATION

JOIN YOUR PEERS ALREADY PARTICIPATING

If you are interested in participating in Year 4 of the benchmarking program, please visit the Building Energy Benchmarking Program website (edmonton.ca/energybenchmarking). Here you will find program updates, details on benchmarking support services, timelines and the registration form. If you have any questions, please email energystar@edmonton.ca.

INCENTIVE PROGRAMS

CITY OF EDMONTON

Edmonton's **Commercial Energy Audit Rebate Program** is available to all benchmarking program participants, making them eligible for up to \$10,000 (or 50% of the total cost, the lesser of the two) per building financial rebate towards a commercial energy audit of their building. A maximum of 3 rebates are available per building ownership group per year. Eligibility criteria and application details are available at edmonton.ca/energybenchmarking.

Edmonton's **Building Energy Retrofit Accelerator** is a new rebate program that provides financial incentives for energy efficiency upgrades to commercial and institutional buildings. The program aims to address the emissions resulting from the operations of commercial, light industrial, and institutional buildings by reducing the energy intensity of eligible buildings. The program offers financial rebates on the purchase and installation of select energy-efficient equipment. Eligibility criteria and application details are available at edmonton.ca/buildingretrofitrebate.

MUNICIPAL CLIMATE CHANGE ACTION CENTRE

The Municipal Climate Change Action Centre (MCCAC) offers programs to help municipalities and community-related organizations address climate change through mitigation and resiliency planning.

The **Recreation Energy Conservation (REC) program** helps municipally-owned recreation facilities reduce energy use and GHG emissions by providing financial incentives to help identify and implement energy-saving projects. Through REC, municipalities can receive incentives for Scoping Audits and Engineering Studies that support investment decisions in addition to incentives for implementing energy efficient retrofits in their facilities. Examples of eligible facilities are arenas, curling rinks, aquatic centres, multiplexes and dry sports centres.

The **Solar for Schools (SFS) program** provides financial rebates to Alberta Public School Authorities who install solar photovoltaic (PV) systems on existing school facilities or land in their jurisdiction and complete a student education initiative as part of the project.

The **Alberta Municipal Solar Program** provides financial incentives to Alberta municipalities who install grid connected solar photovoltaics (PV) on municipal facilities or land and complete public engagement for the project. Program details, application forms and eligibility criteria can be found at mccac.ca.

ENERGY STAR CERTIFICATION

Certified buildings will be able to display the ENERGY STAR symbol on their building, identifying it as a top performer in terms of energy efficiency. To qualify, your building will need a 1-100 ENERGY STAR score of at least 75, meet certain other eligibility criteria, and have your application verified by a licensed professional.

Details available by visiting:

www.nrcan.gc.ca/energy-efficiency/energy-star-canada/about-energy-star-canada/energy-star-announcements/energy-star-certification-commercial-and-institutional-buildings-canada/20258



APPENDIX: ALL BUILDINGS & CATEGORIES

Arts Building & Convocation Hall

APPENDIX: ALL BUILDINGS & CATEGORIES

Building Owner	Name of Building	Building Owner	Name of Building
OFFICE		OFFICE (continued)	
Alberta Infrastructure	John E. Brownlee Building	Humford Management Inc.	Compass Place
Alberta Infrastructure	Land Titles Building Edmonton	Humford Management Inc.	LedgeView
Alberta Infrastructure	Old St. Stephens College	Humford Management Inc.	Limelight
Alberta Infrastructure	Percy Page Centre	Humford Management Inc.	Plaza 124
Alberta Infrastructure	Queens Printer	Humford Management Inc.	R.H. David Building
Bentall Kennedy	9Triple8 (EPL)	Humford Management Inc.	World Trade Centre
Bentall Kennedy	Canadian Western Bank Place	Melcor Developments Ltd.	Fountain Tire Place
Bentall Kennedy	Commerce South Industrial Park 2 (EPL)	Melcor Developments Ltd.	Royal Bank Building
Bentall Kennedy	Commerce South Office Park - Bldg A	Morguard Investments Limited	Petroleum Plaza
Bentall Kennedy	Commerce South Office Park - Bldg B	Morguard Investments Limited	Scotia Place Co-Ownership
Bentall Kennedy	Commerce South Office Park - Bldg D	NAIT	PE
Bentall Kennedy	Commerce South Office Park - Bldg E	NAIT	PEB
Bentall Kennedy	Sun Life Place	PCL Construction Resources Inc.	PCL Edmonton Business Park
Canadian Urban Limited	Canadian Urban Limited - Edmonton	Petwin Properties	Petwin Tower
City of Edmonton	Century Place	QuadReal Property Group	Commerce Place
City of Edmonton	Chancery Hall	QuadReal Property Group	Labour Building (EPL)
City of Edmonton	Fire Station No. 1	Scott Builders Inc.	Scott Builders Edmonton Office
City of Edmonton	Police Station - Downtown Division	Servus Credit Union Ltd	Servus Corporate Centre
City of Edmonton	Waste Mgmt Control Centre/ Admin (WAS101)	Solution 105 Consulting Ltd.	Bell Tower
EPCOR	Eastgate Facility	Solution 105 Consulting Ltd.	MNP Tower
EPCOR	Hugh J. Bolton Service Centre	Strategic Group	CN Tower
EPCOR	South Service Centre	Triovest Realty Advisors Inc.	9925 Building
EPCOR	Transportation and Meter Services	Triovest Realty Advisors Inc.	ATB Place
Epic Investment Services	103rd Street Centre [Enbridge Building] (EPL)		
Humford Management Inc.	Alberta Municipal Place		
Humford Management Inc.	Cardinal Building		

Building Owner	Name of Building
OFFICE (continued)	
Triovest Realty Advisors Inc.	ATCO Centre
Triovest Realty Advisors Inc.	Peace Hills Trust Tower
MURB	
Boardwalk Rental Communities	Capital View Tower
Boardwalk Rental Communities	Christopher Arms
Boardwalk Rental Communities	Deville Apartments
Boardwalk Rental Communities	Fort Garry House
Boardwalk Rental Communities	Galbraith House
Boardwalk Rental Communities	Imperial Tower
Boardwalk Rental Communities	Lansdowne Park
Boardwalk Rental Communities	Maureen Manor
Boardwalk Rental Communities	Oak Tower
Boardwalk Rental Communities	Park Place Tower
Boardwalk Rental Communities	Prominence Place
Boardwalk Rental Communities	Redwood Court
Boardwalk Rental Communities	Riverview Manor
Boardwalk Rental Communities	Royal Heights
Boardwalk Rental Communities	Solano House
Boardwalk Rental Communities	Southgate Tower
Boardwalk Rental Communities	Terrace Tower
Boardwalk Rental Communities	The Palisades

Building Owner	Name of Building
MURB (continued)	
Boardwalk Rental Communities	The Westmount
Boardwalk Rental Communities	Tower Hill
Boardwalk Rental Communities	Tower on The Hill
Boardwalk Rental Communities	Valley Ridge Tower
Boardwalk Rental Communities	Wimbledon
Condominium Corp 1024741 o/a Icon II Condominiums	Icon II
MacEwan University	Student Residence Building (EPL)
McDougall Place Condominium Board	McDougall Place
Midwest Property Management	David Thompson
Midwest Property Management	Edmonton House
Riverwind Strata Title Housing Cooperative Ltd.	Riverwind
Serenity Condominium	Serenity
Top of the Valley Condominium	Top of the Valley Condominium
COLLEGE/UNIVERSITY	
MacEwan University	City Centre Campus (Complex) (EPL)
MacEwan University	Robbins Health Learning Centre
MacEwan University	University Service Centre
Norquest College	Heritage Tower/SCFL
University of Alberta	Arts & Convocation Hall
University of Alberta	Assiniboia Hall
University of Alberta	Athabasca Hall
University of Alberta	Cameron Library
University of Alberta	Centennial Centre for Interdisciplinary Science

APPENDIX: ALL BUILDINGS & CATEGORIES

Building Owner	Name of Building
COLLEGE/UNIVERSITY (continued)	
University of Alberta	ECERF / ETLIC
University of Alberta	Edmonton Clinic Health Academy
University of Alberta	Natural Resources Engineering Facility
University of Alberta	Physical Activity And Wellness Centre
University of Alberta	Students' Union Building
University of Alberta	Timm's Centre for the Arts
University of Alberta	Triffo Hall
University of Alberta	University Hall

GARAGES, YARDS, WAREHOUSES	
Alberta Infrastructure	AB Forest Services Depot
Alberta Infrastructure	Bonaventure Workshop
Alberta Infrastructure	Central Vehicle Service Garage
Alberta Infrastructure	Infrastructure Building (Shops)
Alberta Infrastructure	Infrastructure Warehouse No. 3
City of Edmonton	Ambleside ECO Station
City of Edmonton	Artifacts Centre (O'Keefe Yard)
City of Edmonton	Centennial Transit Vehicle Repair/Storage Garage
City of Edmonton	Central TS Yd Main Offices/ Shops (CEN105/100)
City of Edmonton	Davies Site Administration Building
City of Edmonton	Davies Site Fleet Services Building
City of Edmonton	Davies Site Richard Paterson Garage (Paterson MES)
City of Edmonton	DL MacDonald LRT Garage
City of Edmonton	Ellerslie Fleet Services
City of Edmonton	Ferrier Transit Garage
City of Edmonton	Kennedale Eco Station
City of Edmonton	Mitchell MES

Building Owner	Name of Building
GARAGES, YARDS, WAREHOUSES (continued)	
City of Edmonton	Northeast Traffic Field Operations
City of Edmonton	Northwest TS Yd Equipment Shop
City of Edmonton	Poundmaker Fire Vehicle Repair
City of Edmonton	Southeast TS Yd Admin Off/ Shops (SOU112)
City of Edmonton	Southwest Transit Yard Equipment Storage Garage
City of Edmonton	Strathcona Eco Recycling Station (ECO101)
City of Edmonton	Waste Management Co-Composter (Site #500)
City of Edmonton	Waste Management Grey's Recycling Facility (Site #440)
City of Edmonton	Waste Management Materials Recovery (Site #600)
City of Edmonton	Waste Mgmt Advanced Energy Res. Fac. (WAS119)
City of Edmonton	Waste Services Equipment Storage & Maintenance Facility
City of Edmonton	Waste Services Integrated Processing & Transfer Facility
City of Edmonton	Westwood Central Service Yard
City of Edmonton	Westwood Site Fleet Services/Central Stores
City of Edmonton	Westwood Transit Garage
EPCOR	Kennedale Facility
NAIT	Distribution Centre

VOCATIONAL/ADULT EDUCATION	
Alberta Infrastructure	Learning Resources Centre
Alberta Infrastructure	Solicitor General Staff Colleg
Alberta Infrastructure	Winnifred Stewart School
Alberta Infrastructure	Yellowhead Youth Centre
City of Edmonton	Corporate Training School - Fire Rescue Services

Building Owner	Name of Building
VOCATIONAL/ADULT EDUCATION (continued)	
EPCOR	Winterburn Training Centre
NAIT	C&H
NAIT	CAT
NAIT	HET
NAIT	N-CAT & HP
NAIT	NAIT Main Campus
NAIT	NAIT Patricia Campus
NAIT	NAIT Souch Campus

FIRE STATION	
City of Edmonton	Fire & Ambulance Station No. 24 (FIR124)
City of Edmonton	Fire & Ambulance Station No. 26 (FIR126)
City of Edmonton	Fire Station No. 4 (FIR104)
City of Edmonton	Fire Station No. 5 (FIR205)
City of Edmonton	Fire Station No. 9 (FIR109)
City of Edmonton	Fire Station No. 10 (FIR210)
City of Edmonton	Fire Station No. 11 (FIR211)
City of Edmonton	Fire Station No. 25 (FIR125)
City of Edmonton	Fire Station No. 27 Ellerslie (FIR127)
City of Edmonton	Fire Station No. 28 (Heritage Valley)
City of Edmonton	Fire Station No. 29 Lewis Farms (FIR129)
City of Edmonton	Fire Station No. 30 Pilot Sound (FIR130)
City of Edmonton	Fire/Dangerous Goods Station No. 2 (FIR102)
City of Edmonton	Poundmaker ERD Training Centre

MULTIPLEX	
Aenergy Capital	YMCA Castle Downs
Aenergy Capital	YMCA Jamie Platz
City of Edmonton	ACT Complex
City of Edmonton	Clareview Community Recreation Centre

Building Owner	Name of Building
MULTIPLEX (continued)	
City of Edmonton	Grand Trunk Leisure Centre and Arena
City of Edmonton	Hardisty Pool
City of Edmonton	Kinsmen Sports Centre
City of Edmonton	Londonderry Leisure Centre and Arena
City of Edmonton	Mill Woods Recreation Centre
City of Edmonton	O'Leary Pool
City of Edmonton	Peter Hemingway Fitness and Leisure Center
City of Edmonton	Saint Francis Xavier Sports Centre
City of Edmonton	Terwillegar Community Recreation Centre
City of Edmonton	The Meadows Community Recreation Centre

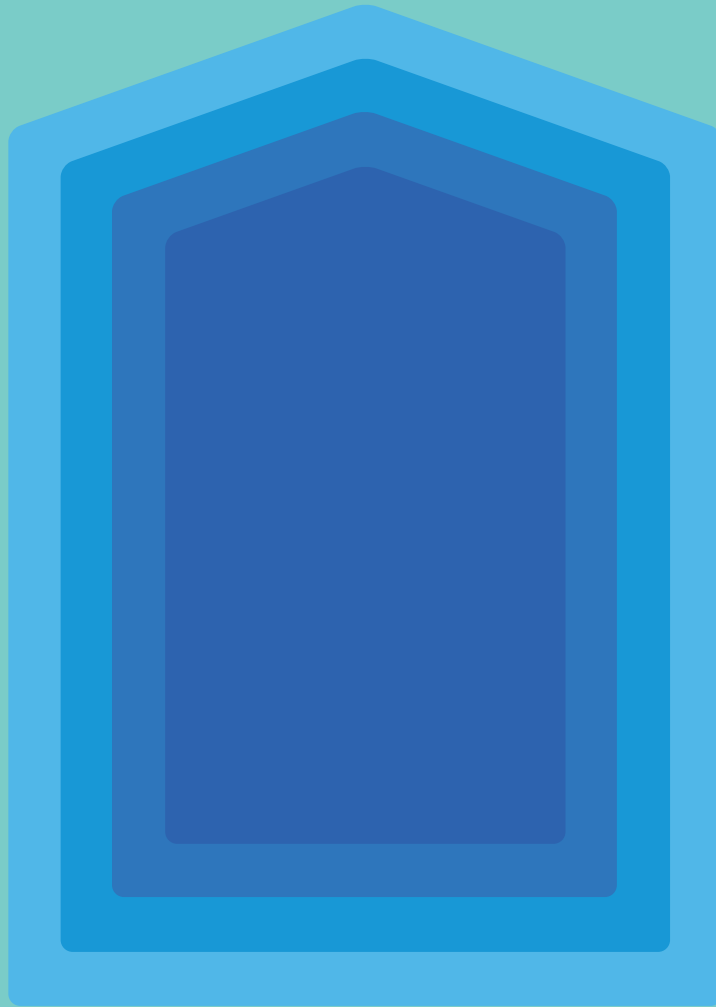
ARENA	
City of Edmonton	Bill Hunter Arena (BIL101)
City of Edmonton	Callingwood Arenas
City of Edmonton	Confederation Arena & Leisure Centre
City of Edmonton	Crestwood Arena (CRE101)
City of Edmonton	Donnan Arena
City of Edmonton	George S Hughes Arena
City of Edmonton	Glengarry Arena
City of Edmonton	Kenilworth Arena
City of Edmonton	Michael Cameron Arena
City of Edmonton	Oliver Arena
City of Edmonton	Russ Barnes Arena
City of Edmonton	Tipton Arena
City of Edmonton	Westwood Arena

LIBRARY	
City of Edmonton	Calder Library (CAL203)
City of Edmonton	Highlands Library
City of Edmonton	Idylwyld Library (IDY101)

APPENDIX: ALL BUILDINGS & CATEGORIES

Building Owner	Name of Building	Building Owner	Name of Building
LIBRARY (continued)		RETAIL	
City of Edmonton	Jasper Place Library	HarvardDev	Building 19
City of Edmonton	Lois Hole Library	Italian Centre Shop	Italian Centre Shop South
City of Edmonton	Mill Woods Library	Kingsway Mall – Oxford Properties Group	Kingsway Mall
City of Edmonton	Prince of Wales Armouries	Sunrise Sustainable	Riverview Crossing Mall
City of Edmonton	Riverbend Library (RIV111)		
City of Edmonton	Stanley A. Milner Library	OTHER	
City of Edmonton	Strathcona Library	Alberta Infrastructure	Alberta Research Council Millwoods
City of Edmonton	Woodcroft Library (WOO101)	Alberta Infrastructure	Crop Diversification Centre (CDC)
TRANSPORT STATION		Alberta Infrastructure	Edmonton Remand Centre
City of Edmonton	Century Park LRT Station	Alberta Infrastructure	Intoxication Recovery Centre
City of Edmonton	Clareview LRT Station	Alberta Infrastructure	Law Courts Edmonton
City of Edmonton	Coliseum LRT Station	Alberta Infrastructure	Northern Alberta Jubilee Auditorium
City of Edmonton	MacEwan LRT Station	Alberta Infrastructure	Provincial Archives of Alberta
City of Edmonton	Stadium LRT Station (STA102)	Alberta Infrastructure	Royal Alberta Museum (New)
POLICE STATION		Alberta Infrastructure	Single Mens Hostel Edmonton
City of Edmonton	EPS Police Headquarters	Alberta Infrastructure	Woodside Homes
City of Edmonton	Police STAT Station (POL103)	Alberta Infrastructure	Young Offender Centre Edmonton
City of Edmonton	Police Station – Southeast	City of Edmonton	Animal Care and Control Centre
City of Edmonton	Police Station – Southwest-Windermere	City of Edmonton	Central Lions Seniors Recreation Centre
City of Edmonton	Police Station North Division	City of Edmonton	City Arts Centre (CIT103)
City of Edmonton	Police Station West Division	City of Edmonton	City Hall
K-12 SCHOOL		City of Edmonton	Commonwealth Recreation Centre + Commonwealth Stadium + Clarke Stadium
Aenergy Capital	Elves Special Needs Society	City of Edmonton	Eastglen Pool
Aenergy Capital	Headway School	City of Edmonton	Emergency Response Centre Stn. No 42
Aenergy Capital	MAC Islamic School	City of Edmonton	Engineering Services Building Materials Test Lab
Aenergy Capital	Parkland Immanuel	City of Edmonton	Muttart Conservatory
Aenergy Capital	Waldorf Independent School of Edmonton (WISE)		
Alberta Infrastructure	Alberta School For The Deaf		

Building Owner	Name of Building
OTHER (continued)	
City of Edmonton	Northgate Lions Seniors Centre
City of Edmonton	Orange Hub
City of Edmonton	Ortona Armouries Arts Centre (ORT101)
City of Edmonton	Waste Management Research & Development
City of Edmonton	Waste Management Leachate Treatment (Site #330 WAS104)
City of Edmonton	William Nixon Training Office (WIL123)
Edmonton Convention Centre	Edmonton Convention Centre
Hostelling International – Canada – Pacific Mountain	HI-Edmonton
La Cité Francophone	La Cite Francophone
Petwin Properties	Dunedin House Apartments



Building Energy Benchmarking Program is a City of Edmonton initiative to support building owners and operators to reduce energy consumption.

For more information about this program, please visit: edmonton.ca/energybenchmarking

For more information, contact 311 or email energystar@edmonton.ca

**CHANGE
BUILDINGS
FOR CLIMATE**

