

Building Benchmark BC

Annual Report 2025





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Building Benchmark BC is a collaborative initiative spearheaded by local and regional governments, as well as BC Hydro and the University of British Columbia. This program aims to promote climate change solutions in the built environment through collective action and innovation. The participating jurisdictions and partners are exploring the role of building energy benchmarking and disclosure within a broader framework of climate regulations, policies, and incentives — a framework that is shifting quickly, as municipalities across BC begin adopting mandatory benchmarking requirements and momentum builds for provincial action.

The program is managed and administered by OPEN Technologies, a software company that developed and maintains GRID, the data visualization platform that is central to Building Benchmark BC. OPEN is also contracted to provide services to Building Benchmark BC. OPEN is grateful for the support of its partners who have provided funding or in-kind resources to make this program possible.

OPEN Technologies is based in Vancouver, British Columbia, on the unceded territory of the Coast Salish Peoples including the territories of the xʷməθkwəyəm (Musqueam), Skwxwú7mesh (Squamish), and Səlilwətaʔ/Selilwitlh (Tsleil-Waututh) Nations.

Year 6 Partners



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OPENING LETTER

The Shift from Voluntary to Compliance Reporting

Building energy benchmarking is expanding in BC - and it's municipalities, not the Province, that are driving the shift.

Municipalities are Blazing the Trail

For seven years, Building Benchmark BC has demonstrated that voluntary reporting works. Research shows that benchmarking can help buildings achieve an average of 9% energy savings within 3 years - savings that translate to lower operating costs, more affordable buildings for tenants, and measurable progress on emissions reduction. Those outcomes are available to any community, regardless of where they are on the path to mandatory reporting.

Returning readers of the BBBC annual report may recall that last year at this time OPEN Technologies was calling for greater provincial leadership on benchmarking and performance standards. We're not alone in this. The Union of BC Municipalities has already passed a resolution calling on the Province to make energy benchmarking and annual reporting mandatory for large buildings - a signal that there is mainstream demand from local governments who have done the work, seen the results, and know what's needed.



Donovan Woollard
CEO, OPEN Technologies

"Local programs are much more effective, and more durable, when they are backed by consistent provincial policy."



Richmond, BC

By harmonizing requirements across jurisdictions and linking with existing provincial data infrastructure, the CRD has build a benchmarking model that could be applied across BC.



Victoria, BC



Vancouver, BC

While this year did not see progress at the provincial level, local and regional governments across BC have been watching and drawing their own conclusions. Increasingly, they are mandating building energy and carbon reporting to help reach their own climate goals.

The clearest example of momentum towards compliance reporting is in BC's capital region. Earlier this year, the Capital Regional District - in collaboration with the District of Saanich and the City of Victoria - launched a regional building benchmarking program that demonstrates what coordinated regional

ambition looks like in action. Bylaws adopted by both municipalities require owners of buildings larger than 30,000 square feet to report their 2025 energy-use data by August 1, 2026, with coverage expanding to buildings as small as 10,000 square feet by 2027. By harmonizing requirements across jurisdictions and linking with existing provincial data infrastructure, the CRD has built a benchmarking model that could be applied across BC and beyond.

Now, Richmond and other communities are developing their own initiatives, and the appetite across the province is clear.



Where Building Benchmark BC Fits In

1,912

buildings reporting this cycle

1,247

buildings reporting for 5+ consecutive years

Against this backdrop, Building Benchmark BC's role is more valuable than ever. BBBC is a resource for building owners at every stage of the reporting journey, whether they're just getting started, or have five or more years of benchmark data to compare their performance trends, year over year or relative to their peers. For communities that haven't yet moved to mandatory reporting, BBBC offers a low-friction way to build familiarity with the process, so that when compliance does arrive, it feels like a natural next step.

The CRD recognized this directly, linking its new program with the broader BBBC dataset to give participants richer benchmark insights than a standalone regional program could provide on its own. Other communities planning future compliance programs are also already looking to BBBC to ease the transition for building owners when requirements kick in.

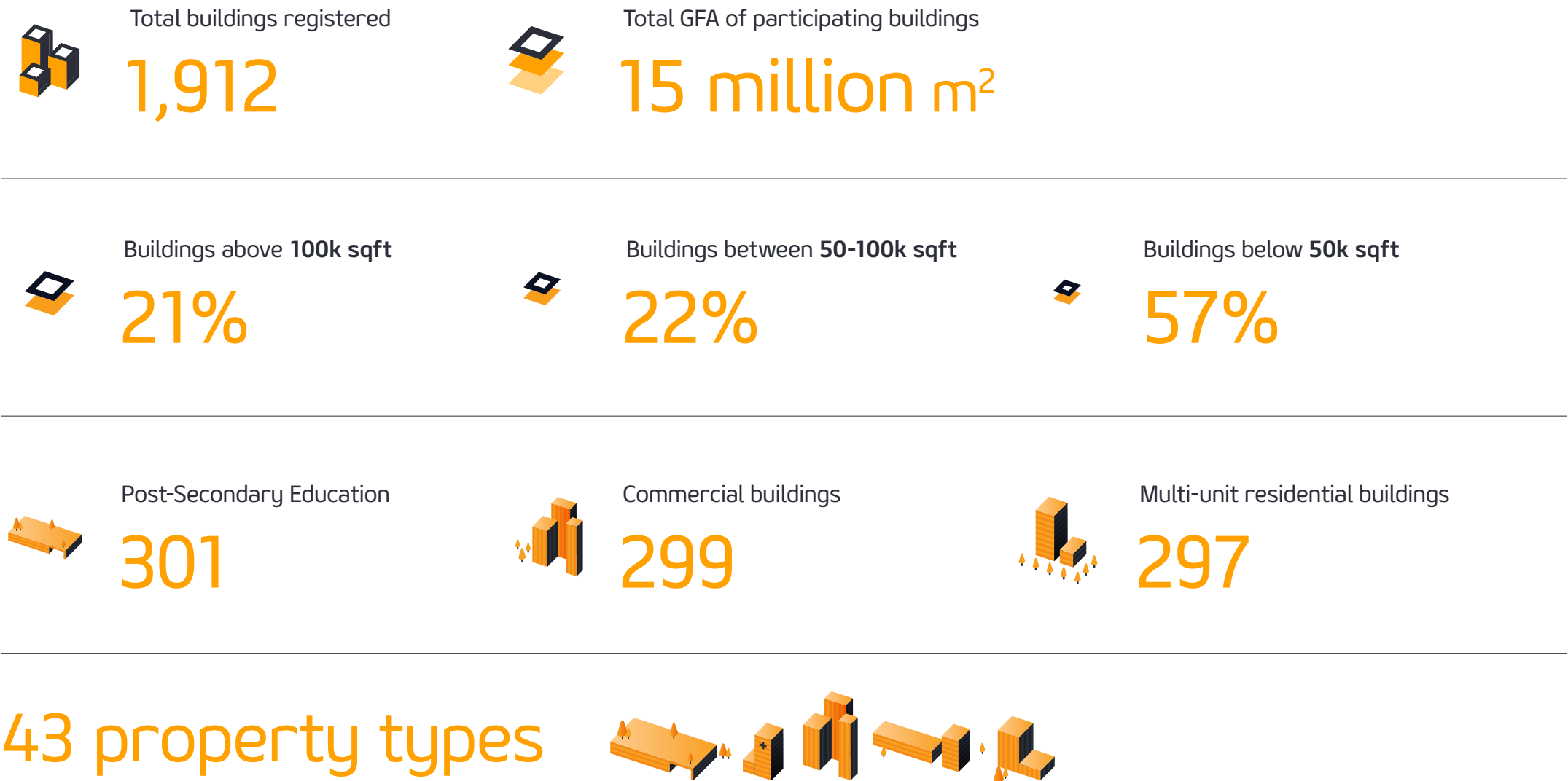
BBBC is laying the foundation for broader adoption of energy and carbon reporting across BC, and its relevance only grows as more communities move in this direction. If your community is considering a benchmarking program, there has never been a better time to get involved.

Introduction

A Deeper and More Mature Dataset

The number of participating buildings has more than tripled since 2019, increasing from 537 to more than 1,900. While participation has stabilized in recent years, the program has continued to mature in a more meaningful way. More than half of all participating buildings have now reported energy performance data for five or more consecutive years, creating a robust longitudinal dataset. This growing depth of historical data enhances the value of benchmarking by enabling more reliable trend analysis, stronger performance comparisons, and a clearer understanding of changes in building energy performance over time.

Program Snapshot



The Five Year Picture: Deepening Data, Driving Action

With over 1,200 buildings reporting consistently over the five years between 2020 and 2024, we can identify some key trends across Building Benchmark BC. The following analysis is based on 707 of those buildings with complete data for all five years.

Energy Use & Carbon Emissions are going in opposite directions

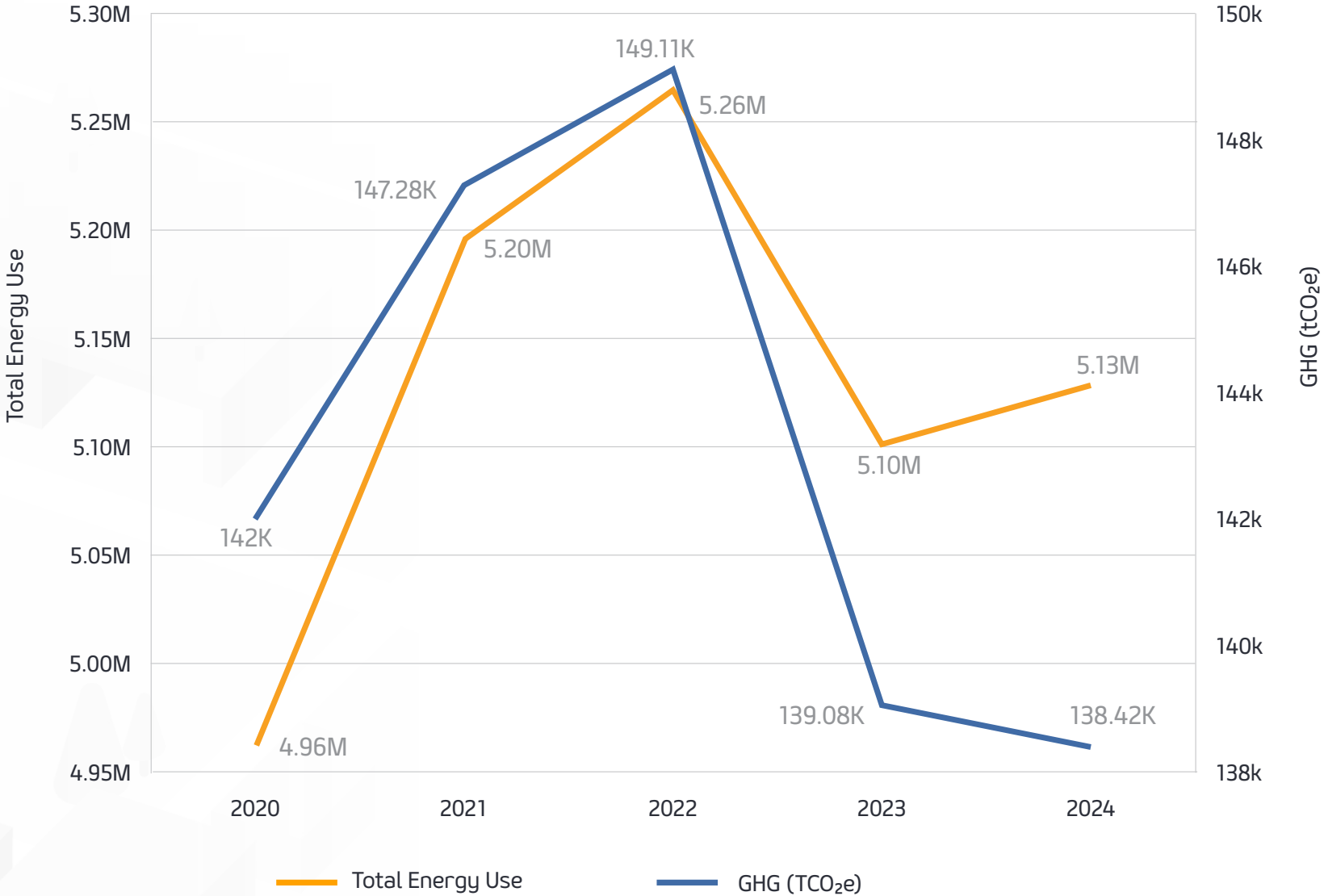
For buildings with clean data across the last five years, average energy use increased by 166,000 GJ (+3.3%) between 2020 and 2024, while total greenhouse emissions decreased by 3,582 tCO₂e (-2.5%).

This slight deviation between the energy consumption trend (up) and the GHG emissions trend (down) is a result of three factors:

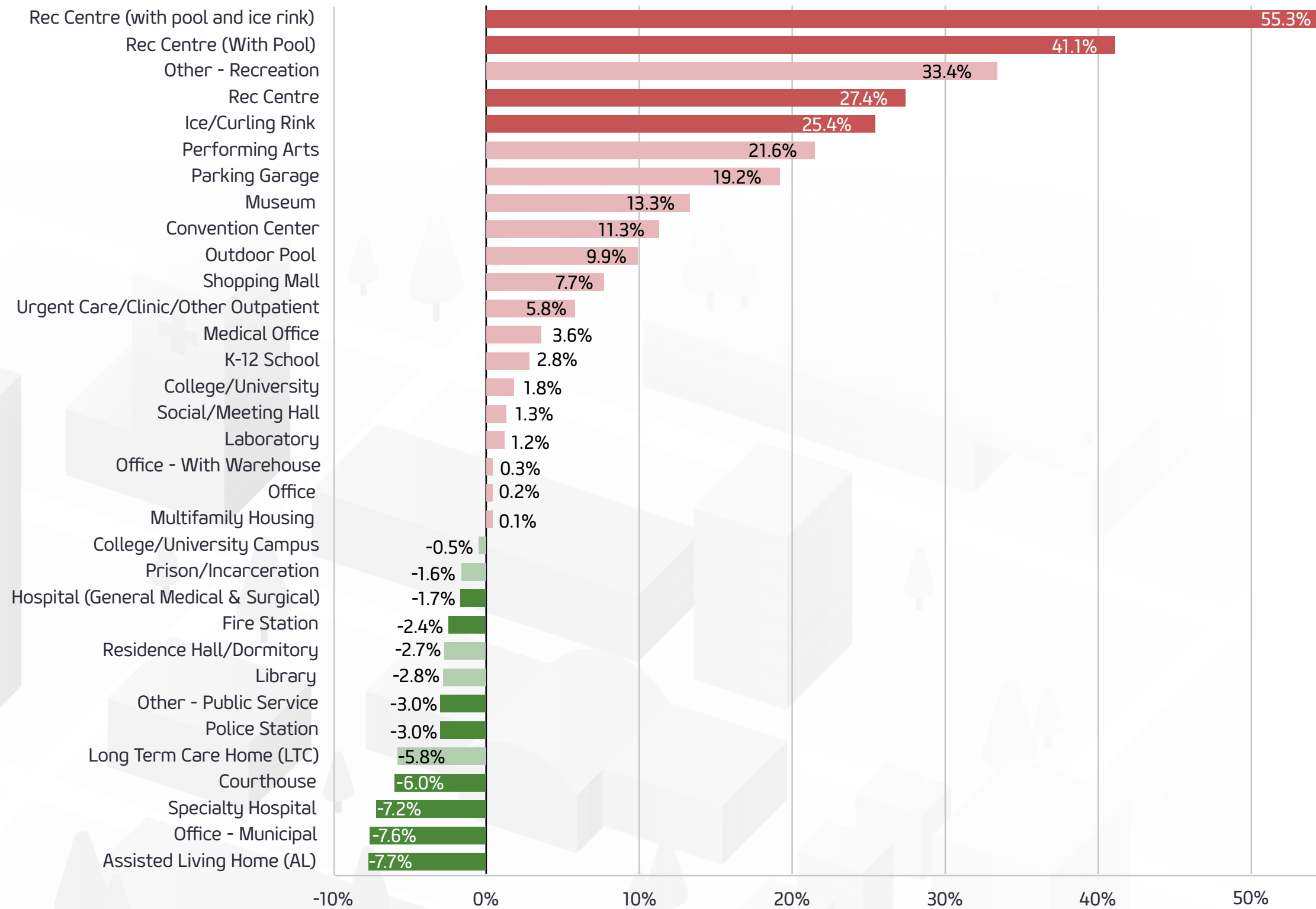
- **Volume effect**, which would have added 4,748 tCO₂e if the energy mix and emissions factors in 2024 were identical to those in 2020;
- **Energy mix effect** (ie. the shift from fossil fuel to electricity) which accounted for a further reduction of 1,683 tCO₂e as the share of electricity in the energy mix for these buildings grew from 50% of all energy consumed in 2020 and nearly 53% of all energy in 2024; and
- **Emissions factor effect** (ie. the result of electricity and natural gas emissions factors reducing slightly between 2020 and 2024) which reduced real emissions by 6,648 tCO₂e.

In short, the operation of these buildings would have added 3,065 tCO₂e to the atmosphere but for the reduction of the carbon intensity of the energy grid itself. This is a clear illustration of the need to focus on all these levels (energy consumption, energy mix, and grid intensity) in our efforts to reduce the climate impact of buildings.

Total Energy Use and GHG by Year



% Change in Energy Use by Building Type

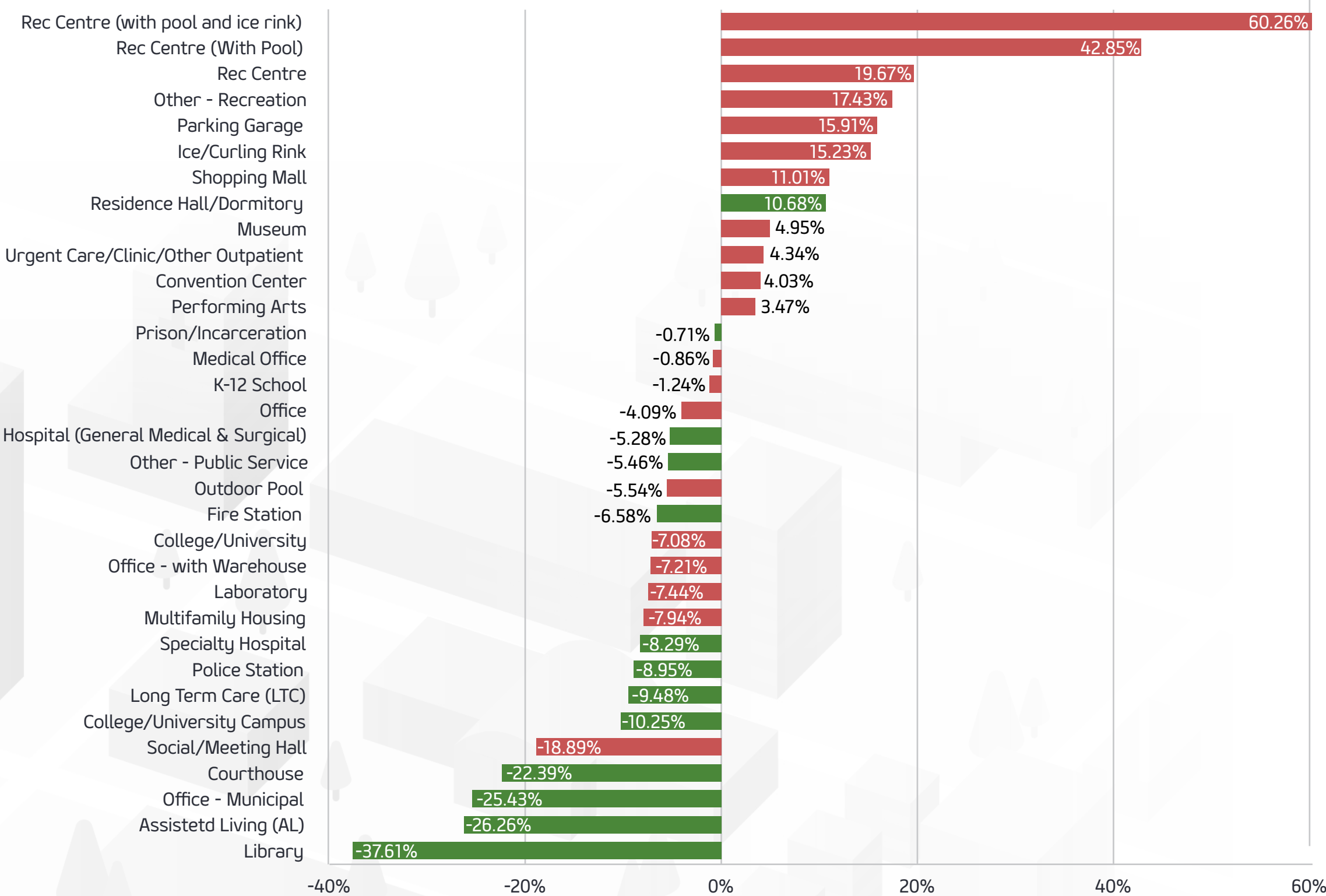


Sectoral Analysis

Energy

Broadly speaking, public sector buildings drove a lot of the energy efficiency improvements, with Municipal Office (7.6% reduction), Specialty Hospital (-7.2%), Courthouse (-6.0%), Police Station (-3.0%), Other Public Service (-3%), Fire Station (-2.4%), and Hospital-General (-1.7%) collectively generating over 37,000 GJ of savings in 2024. That said, a lot of the big movers on the negative side of the energy equation were also in the public sector, most notably Rec Centres with Pools & Rinks (+55.3%), Rec Centres with Pools (+41.1%), Rec Centres (+27.4%), Ice/Curling Rinks (+25.4%) adding 167,000 GJ to their consumption relative to 2020. This is likely a function of the baseline year of 2020 being depressed by the covid pandemic and usage bouncing back to historical levels.

% Change in Greenhouse Gas by Building Type



Sectoral Analysis

Greenhouse Gas

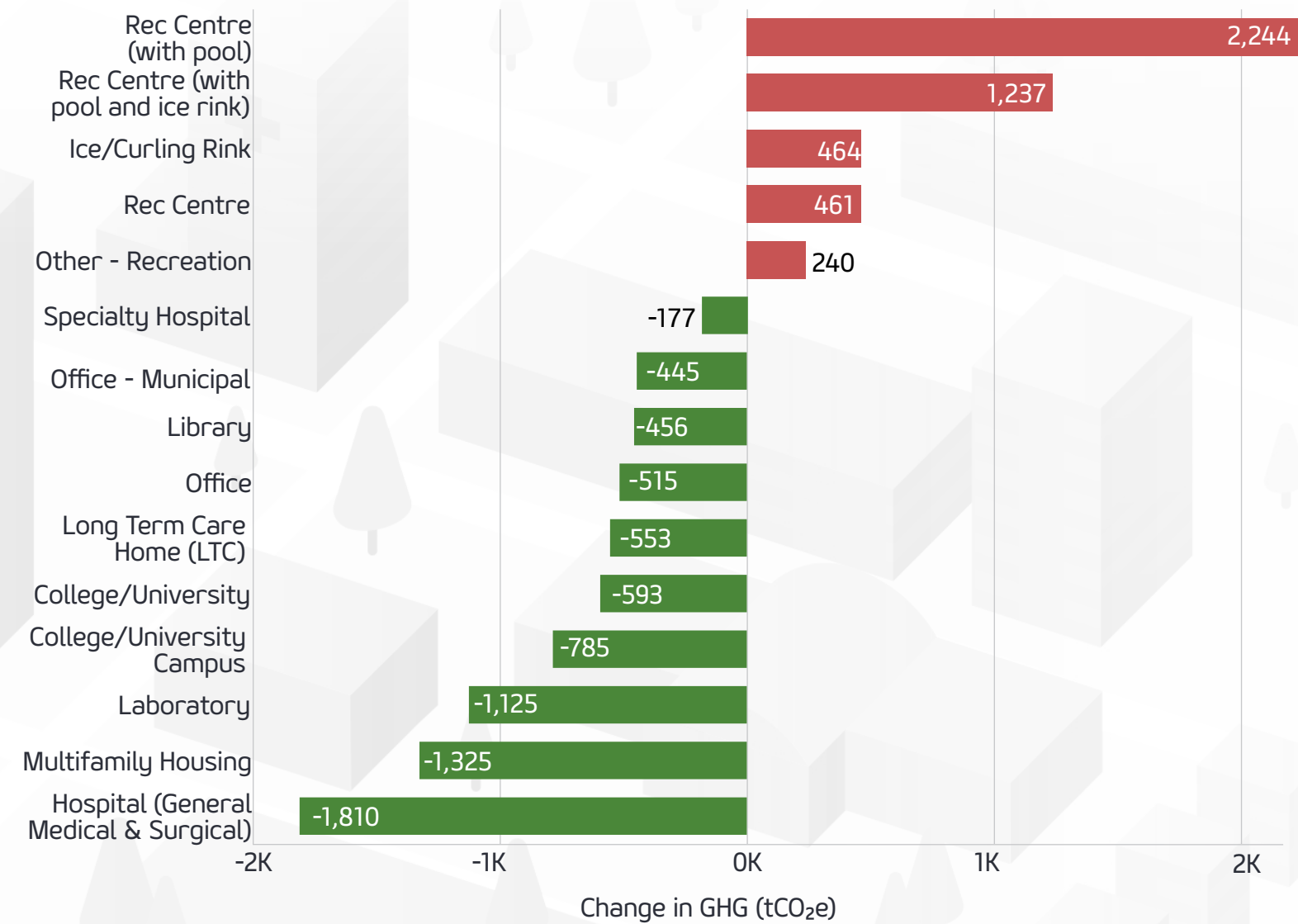
Large recreational facilities also drive a significant portion of the increase in GHG emissions, in proportion to their increased energy usage. That said, many building types that increased their energy consumption actually generated substantial carbon savings, namely Multi-Family Housing (-7.9%), Laboratory (-7.4%), College/University (-7.1%), and Office (-4.1%). This can be observed in the figure on this page, where GHG reduction is indicated spatially (properties to the left of 0 indicate a reduction in carbon emissions, while those to the right saw an increase), and energy consumption is indicated by colour (green bars for those that decreased and red bars for those that increased energy usage).

While energy and GHG are broadly correlated in most building types, the prevalence of red bars in the GHG reduction zone capture instances where there was a shift toward a greater share of cleaner electricity in the overall energy mix relative to fossil fuel.

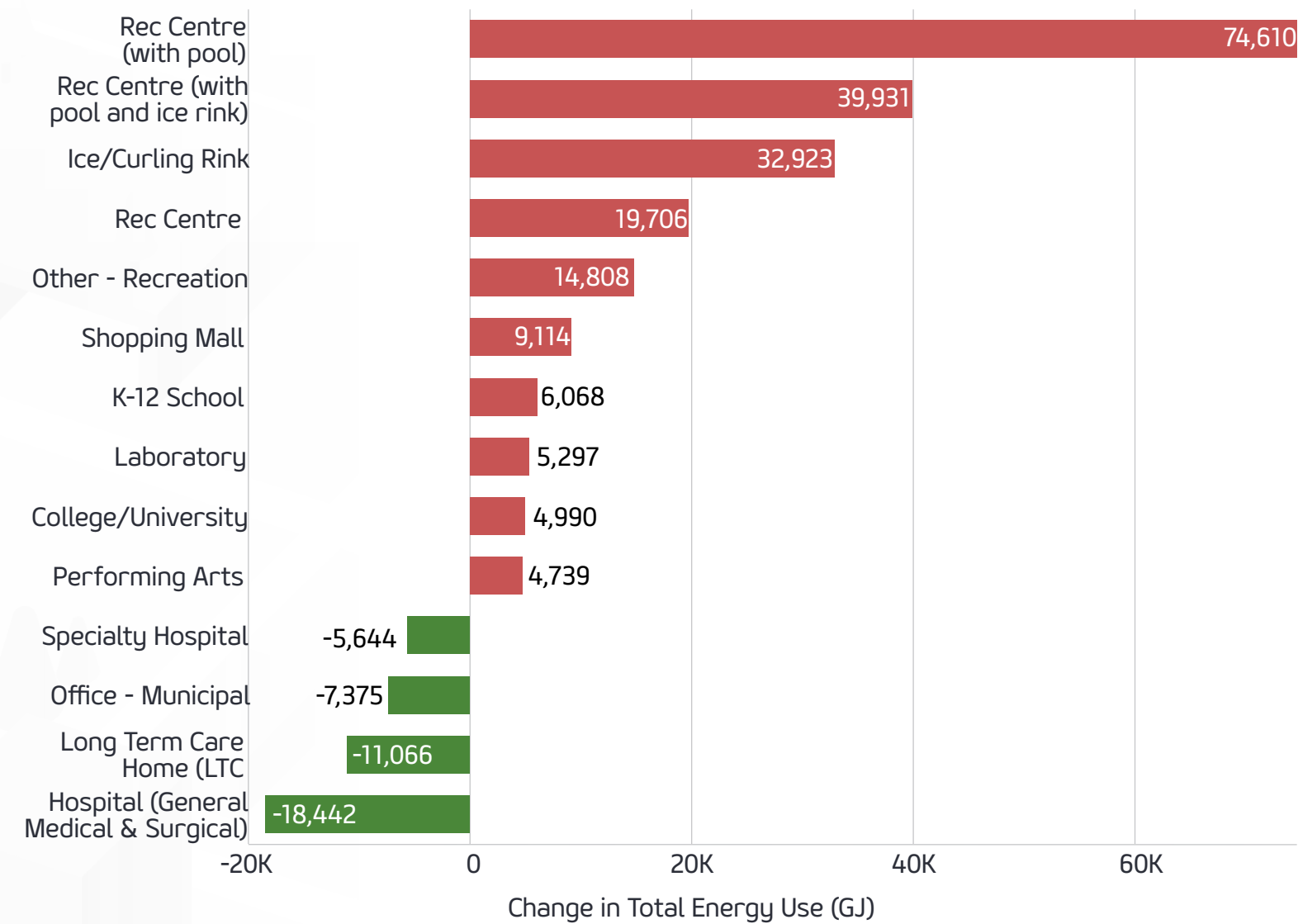
Change in Emissions by Property Type

Furthermore, while General Hospitals only reduced their emissions by 5.3%, they represent the second largest contributor to the net change in GHG emissions (-1,810 tCO₂e, second to the +2,243 tCO₂e of Rec Centres with Pools). In contrast to the positive net difference in energy use, driven by recreational facilities, this larger impact of General Hospitals is driving the negative net difference in emissions.

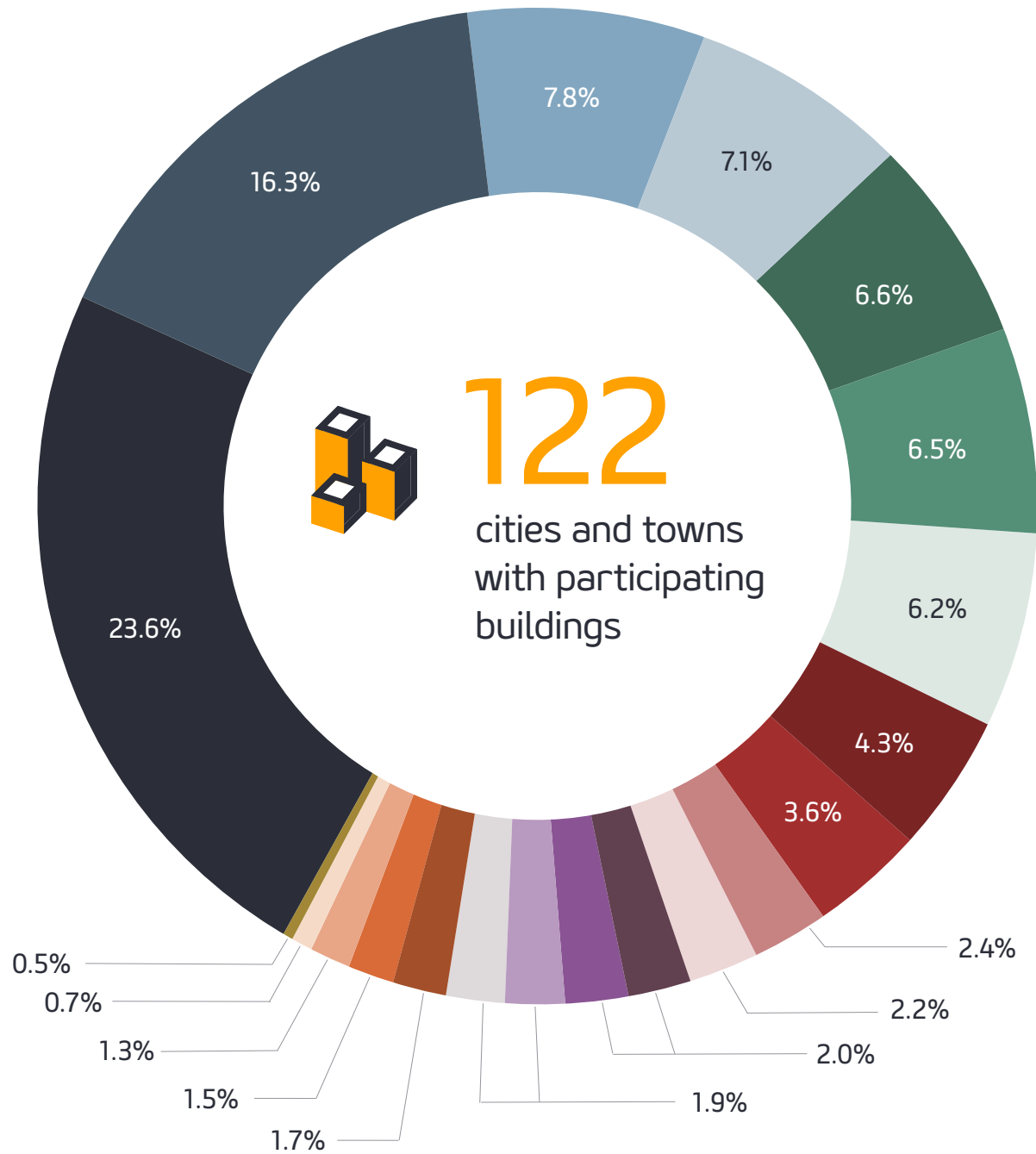
Change in GHG by Property Type (tCO₂e)



Change in Energy Use by Property Type (GJ)

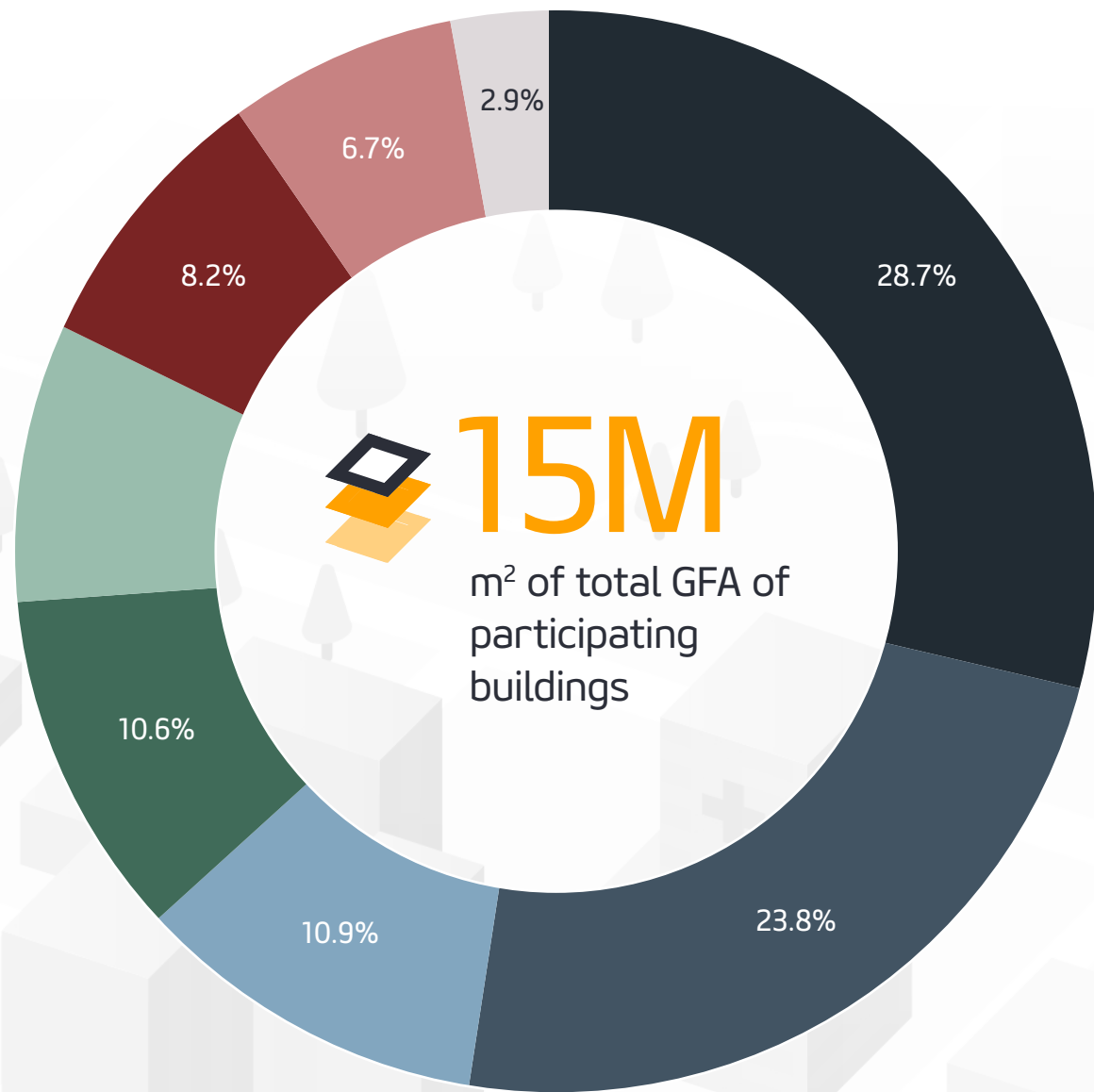


Number of Buildings by Jurisdiction



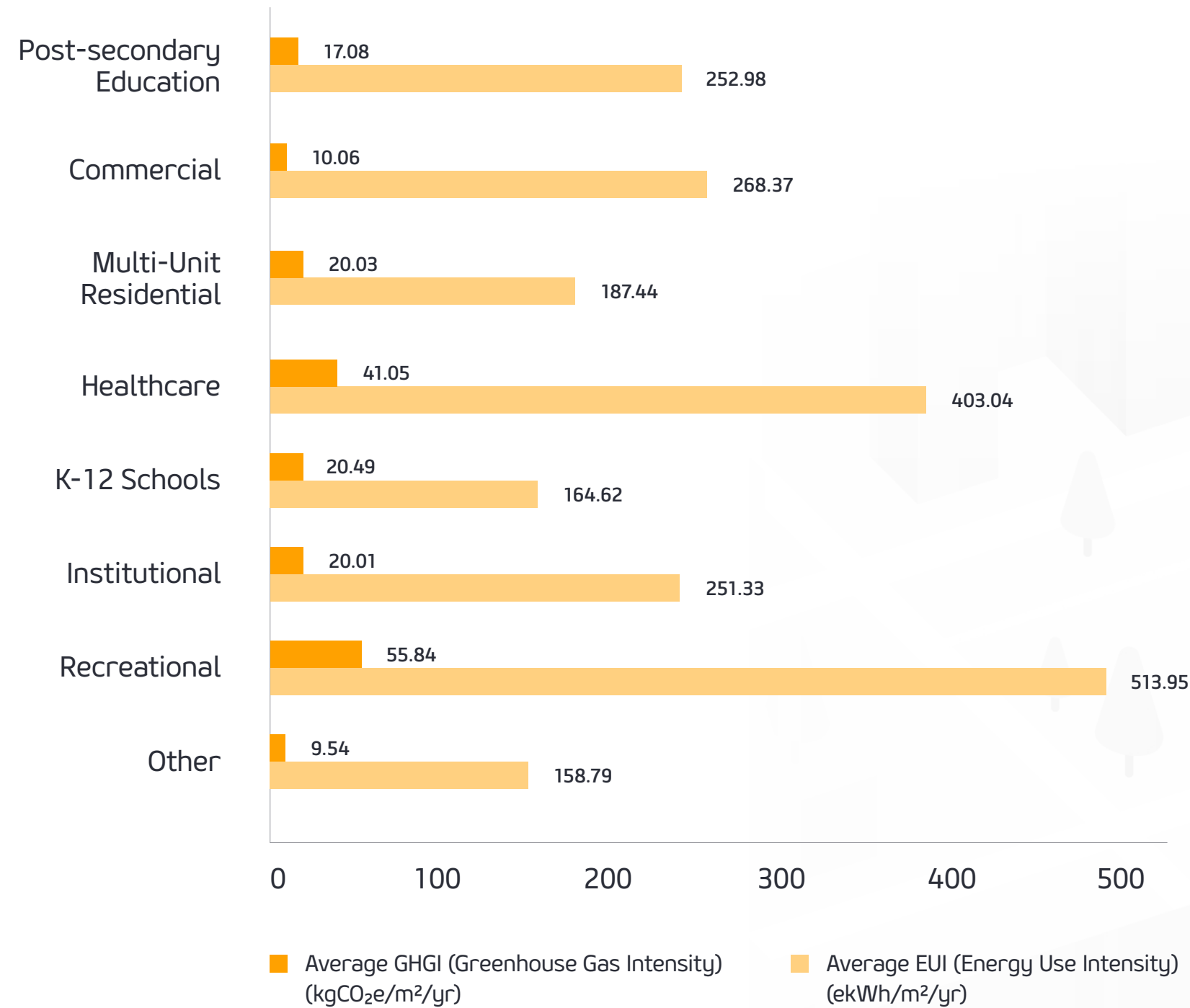
451	Other
312	City of Vancouver
150	City of Victoria
136	University of British Columbia
127	City of Surrey
125	City of Burnaby
118	District of Saanich
83	City of Richmond
69	District of North Vancouver
45	City of Kelowna
43	City of Kamloops
38	City of Nanaimo
38	City of North Vancouver
36	City of Port Coquitlam
36	District of West Vancouver
33	City of New Westminster
29	Township of Langley
25	City of Port Moody
13	Resort Municipality of Whistler
5	Township of Esquimalt
1,912	Total

Building Property Type by Total Gross Floor Area (m²)



■	4,433,804.79	Post-secondary Education
■	3,676,368.16	Commercial
■	1,678,522.02	Multi-unit Residential
■	1,635,707.88	Healthcare
■	1,298,210.96	K-12 Schools
■	1,264,918.52	Institutional
■	1,037,337.70	Recreational
■	444,370.13	Other
	15,469,240.16	Total

Site GHGI and EUI by Building Type



23.56 kgCO₂e/m²/yr

overall average GHGI

265.82 ekWh/m²/yr

overall average EUI

Year in Review

2024 Data Cycle

This year, about one in four participating buildings ran entirely on electricity, with no fossil fuels burned on site. These all-electric buildings tend to be newer than the gas-heated buildings. Since BC's grid is about 98% clean¹, every building that goes all-electric is shifting its load onto a near-zero carbon supply, which is why electrification is the single biggest lever for cutting emissions from the province's building stock.

1 in 4 participating buildings run entirely on electricity, a share that has held for three years running

¹ BC Hydro, "Sustainable energy future" — <https://choose.bchydro.com/why-choose-bc/clean-energy>

2025 Key Takeaways

Newer buildings are **1.5x** more likely to be all-electric



Building Age

Among participating buildings, the share with no on-site fossil fuel use climbs from about 23% for those built before 2000 to 36% for those built in the 2010s — roughly a 1.5-fold increase.

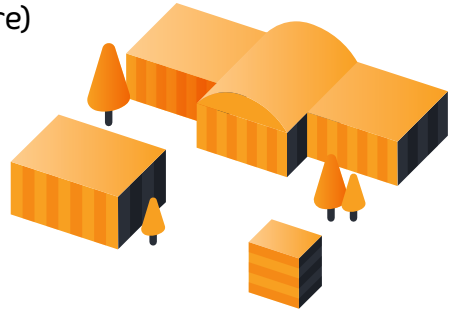
1,247 buildings reported for 5+ consecutive years



Maturing Dataset

1,247 buildings have now reported for five or more consecutive years, and 658 of those for six to seven years running. This kind of sustained, voluntary year-over-year disclosure — from schools, hospitals, offices, and housing providers alike — shows that BC's building sector is not only willing but ready to support a mandatory benchmarking program.

514 kWh/m² (Recreational)
403 kWh/m² (Healthcare)



Opportunities for Decarbonization

Recreational and healthcare facilities remain the most energy and carbon-intensive building types in this year's cohort. Their intensity reflects long hours, large conditioned volumes, and energy-hungry amenities. These buildings also represent the greatest opportunities for targeted retrofits and mechanical upgrades that can deliver outsize energy and emissions savings.

CASE STUDY - GREATER VICTORIA 2030 DISTRICT

A Collaborative Approach to Building Decarbonization

The Greater Victoria 2030 District (GV 2030 District) is a public-private-nonprofit partnership working to transform existing commercial and institutional buildings into high-performing, low-carbon, and climate-resilient assets.

As one of 26 districts in the North American 2030 Districts Network, it brings together building owners and property managers committed to ambitious energy and emissions reduction goals.

By 2024, the District included 15 participating organizations representing 33 properties, 56 buildings, and more than five million square feet of floor space. The portfolio includes office, retail, mixed-use,

and institutional buildings of varying ages and sizes.

Participating buildings commit to achieving energy use intensity (EUI) levels 50% below established benchmarks and reducing greenhouse gas emissions intensity (GHGI) by 50–80% relative to baseline performance. Benchmarking and performance tracking play a critical role in measuring progress and identifying opportunities for improvement.

The Value of Benchmarking Partnerships

Since 2023, the GV 2030 District and Building Benchmark BC (BBBC) have worked together to streamline energy and emissions data collection, reporting, and analysis. By aligning reporting processes, the partnership helps building owners and managers meet multiple requirements through a coordinated approach while gaining access to deeper performance insights.

Participation in BBBC also allows GV 2030 District members to compare performance against a broader provincial dataset, helping them identify trends, prioritize investments, and make more informed decisions about building improvements.

CASE STUDY - GREATER VICTORIA 2030 DISTRICT

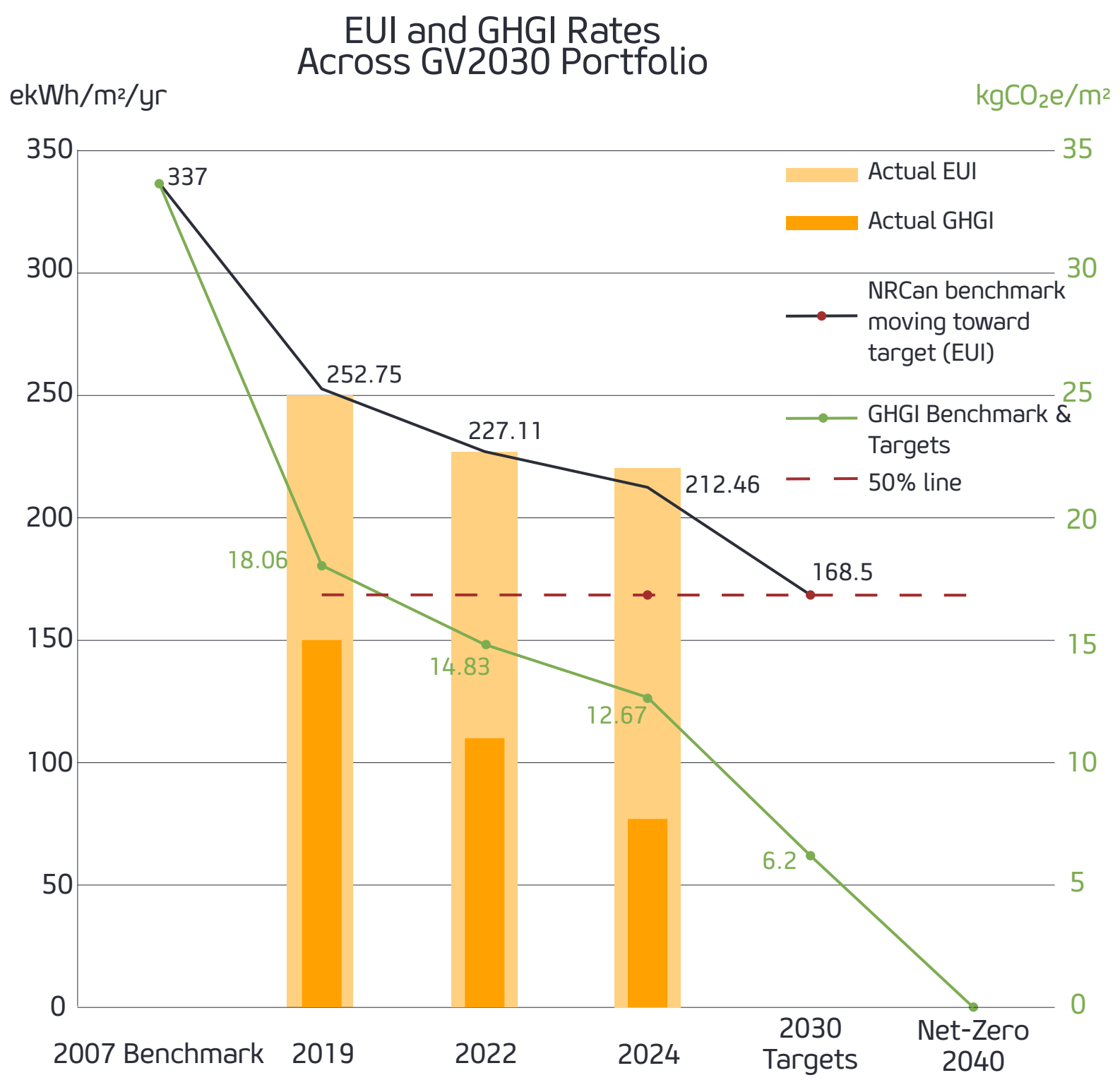
Strong Results, Ahead of Schedule

Performance results demonstrate the power of collaborative action and data-driven decision-making. Since 2019, participating buildings have reduced greenhouse gas emissions intensity by 48%, bringing portfolio emissions to 75% below benchmark levels by 2024. Energy performance has also improved steadily, with energy use intensity now 35% below benchmark.

These gains have translated into early success: 12 properties have already achieved both 2030 District performance targets—six years ahead of the 2030 goal.

Performance improvements have been driven by a range of energy efficiency and decarbonization initiatives, including advanced building automation systems, heat pumps, heat recovery technologies, fuel switching, renewable energy integration, lighting upgrades, electrification projects, green roofs, and electric vehicle charging infrastructure.

Since its launch, the GV 2030 District has provided one-on-one support to help participants establish benchmarking practices and improve data quality. In recognition of these efforts, Natural Resources Canada presented the District with an Energy Star Portfolio Manager award in 2024. This early support also helped position participating buildings to comply with energy and emissions reporting requirements later introduced by the City of Victoria and the District of Saanich.





CASE STUDY - GREATER VICTORIA 2030 DISTRICT

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PERFORMANCE HIGHLIGHTS

Greater Victoria 2030 District

Year Joined	Buildings already achieved 2040 emissions targets	Properties that have achieved District targets 6 years ahead of schedule
2019	8	12
Energy Use Intensity below benchmark by	Total Portfolio Emissions below benchmark by	Participating buildings that have reduced emissions by >50%
35%	75%	75%

What's Next?

As the building sector continues its transition toward net-zero emissions, the collaboration between GV 2030 District and BBBC is helping accelerate progress through better data, stronger benchmarking practices, and shared learning.

The GV 2030 District demonstrates how benchmarking, peer collaboration, and performance tracking can drive measurable improvements across a diverse building portfolio. Together, GV 2030 District and BBBC are helping building owners turn data into action, and achieve results ahead of target timelines.



Looking Ahead

As we round out the sixth year of Building Benchmark BC, we also look to the future. The future that is leaning towards mandatory reporting, municipal policy changes, and evolving climate targets. BBBC remains committed to expanding our reach, enhancing data quality, and supporting our partners as they navigate the changing landscape to build a more sustainable future.

Thank you to everyone who has been part of this journey. The progress we've made together - from early adopters to a growing network of committed building owners and municipalities - reflects what's possible when collaboration meets purpose. Here's to the next chapter of innovation, impact, and leadership in building energy benchmarking across BC.

Join the Movement

Intrigued by what you've seen here? Visit our Disclosure Map or take a deeper dive into the data at buildingbenchmarkbc.ca/data.

Visit our [website](#) to learn how you can participate as a building owner or city partner or contact us at support@buildingbenchmarkbc.ca.

