



2025

CITY OF ASPEN

BUILDING IQ COMMUNITY BENCHMARKING REPORT

Created by the Community Office for Resource Efficiency on behalf of the City of Aspen to report on the benchmarking data from 2021 through 2024.



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Building IQ Overview

Buildings account for 47% of Aspen's greenhouse gas emissions. Improving existing buildings is critical to achieving the City of Aspen's ambitious science-based targets to reduce greenhouse gas emissions by 63.4% by 2030 and 100% by 2050.

On April 12, 2022, the City of Aspen passed Ordinance No. 05, officially establishing the Building IQ program.

Building IQ addresses emissions from existing buildings through a two-part program that includes:

- Benchmarking – tracking energy and water use annually.
- Building Performance Standards (BPS) – Performance standards that reduce energy use or emissions over time

Benchmarking helps identify opportunities for emissions reductions in buildings by establishing a baseline understanding of energy and water usage, and by creating awareness of opportunities for technical and financial resources that are available to support buildings to reduce their emissions.

The **Community Office for Resource Efficiency (CORE)**, a 501(c)(3) nonprofit, partners with the City of Aspen to offer free personalized benchmarking support to property owners and managers.

Over 97% of Aspen's covered buildings participate in the benchmarking program—one of the highest compliance rates in Colorado. This strong community engagement allows the City and CORE to focus support where it can have the greatest impact.

High-quality data and expert support can inform long-term plans to improve a building's efficiency and reduce emissions!

Key Takeaways

41% Through Building IQ, over 41% of the total square footage of buildings in Aspen has been benchmarked.



CORE provided technical advising and \$229,000 in funding support to Building IQ participants in completing five new building retrofit projects since last year's report.



In 2024, gas emissions accounted for nearly 76% of all benchmarked buildings' emissions. City of Aspen Electric provides 100% renewable energy and Holy Cross Energy provides electricity primarily from renewable sources of energy that emit less greenhouse gas emissions than burning fossil fuels. Transitioning from gas to clean electricity for fueling Aspen's buildings will substantially reduce emissions.



Hotels are the highest greenhouse gas emitters by use type, accounting for 41% of all benchmarked building emissions, with 73% of that attributed to gas. Though these buildings can be challenging to electrify given their unique amenities, there is ample opportunity for targeted improvements.



Multifamily buildings account for 19% of benchmarked building emissions. Targeted efforts to support these buildings to electrify and improve their efficiency will deliver emissions reductions results. Projects are underway in Aspen that will provide a model for complex buildings like these seeking to electrify.



The phased onboarding process for commercial buildings greater than 5,000 sqft and multifamily buildings greater than 15,000 sqft is now complete and 173 buildings have all taken the first step in their energy efficiency journey.



With the onboarding phase complete, future program efforts will focus on helping participants implement projects, access technical guidance, and secure funding.

Steps Forward

Now that 173 buildings in Aspen have access to their consumption data and curated recommendations from CORE, building owners can take action to increase their building's efficiency and reduce their building's emissions.

The City of Aspen and CORE are working together to increase funding available for Building IQ participants in 2026 and increase ease of access to technical assistance.

In 2025, benchmarking conversations identified ten new opportunities to influence upcoming building retrofit projects. These buildings will work with CORE energy advisors to turn these opportunities into tangible and measurable emissions reductions.

The next phase, as outlined in the Aspen City Council's Building IQ ordinance, is for staff to develop options for Building Performance Standards (BPS) for Council consideration. These standards would set specific targets for buildings to help the City of Aspen reach its climate goals. Email BuildingIQ@aspen.gov to provide input on these standards.

Identifying funding is a key step in creating change based on benchmarking results. The City of Aspen is conducting a study of the costs and benefits of improving all buildings in Aspen and evaluating funding opportunities. Results of this community-wide study will likely support the City of Aspen in sharing funding strategies with Building IQ participants.

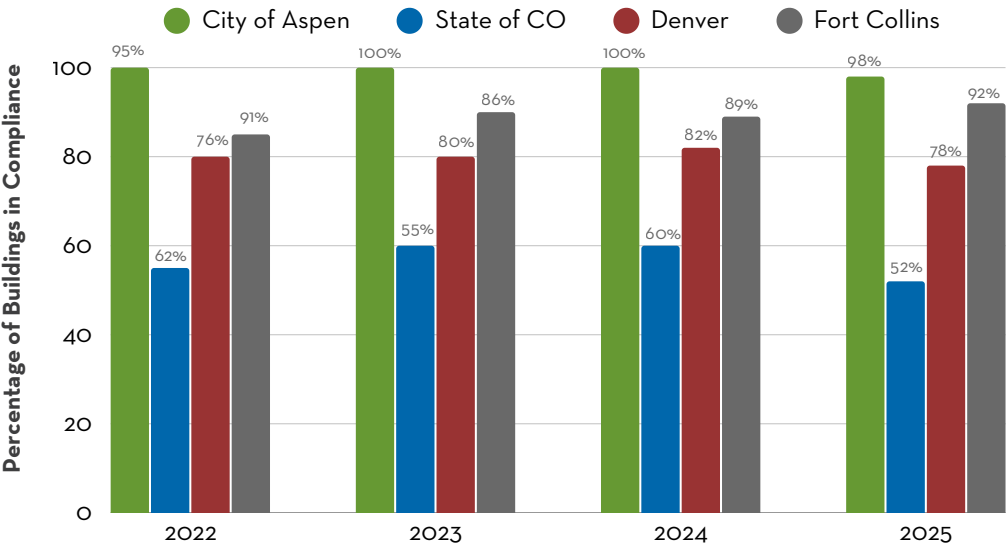


Building Highlight

AJAX Mountain Building

This project will implement a dual-fuel system, with heat pumps expected to handle the majority of the building's heating load and a gas boiler providing supplemental heat. The heat pumps will be sub-metered, allowing CORE to track their energy usage and assess how the energy load is shared between gas and electric in this system design. The project will provide valuable information for future electrification efforts in complex commercial buildings.

Benchmarking Program Compliance Rates



This graph shows how the City of Aspen's compliance rates continue to lead performance across the state. (Source: ENERGY STAR Portfolio Manager, 2025).

**Please note that other communities' compliance rates are subject to change based on their reporting timeline and any allowable extensions.*

Benchmarking Overview

What is Benchmarking?

Benchmarking is a process where building owners track and compare their building's energy and water use to similar buildings over time. Benchmarking helps owners and occupants understand their building's performance and identify areas for improvement.

What is Benchmarked?

173

buildings

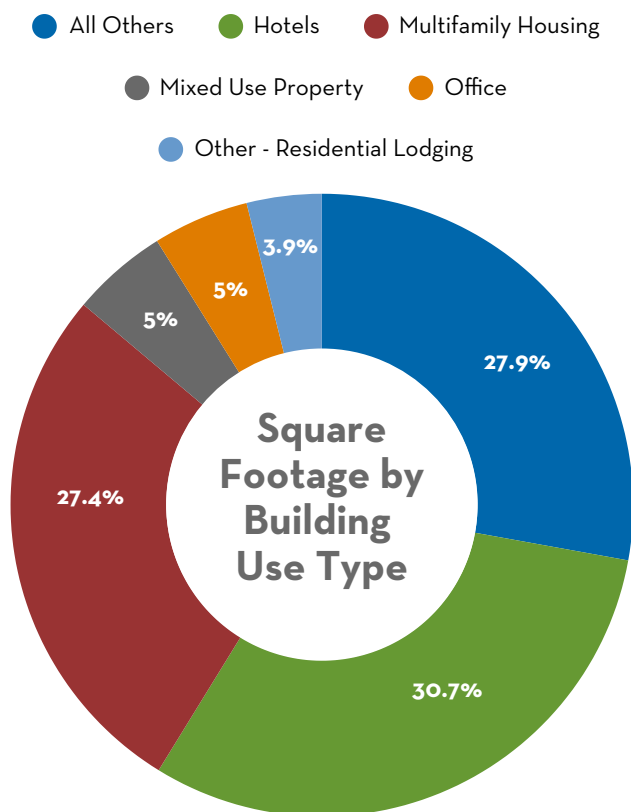
41%

of the total square footage
of buildings in Aspen

5.5

million sq. ft.

The two types of buildings that represent the largest square footage of all buildings benchmarked in Aspen are hotels and multifamily buildings, for a total of about 3.2 million square feet in 2025.²



Building Highlight

Obermeyer Place

"Getting a CORE grant for our building automation upgrade was a straightforward process with simple paperwork. This helped our HOA, which includes deed restricted housing, have a system that is running as efficiently as it can. Our utility costs are trending under budget and the system's online dashboard lets us quickly make adjustments."

Ben Wolff, General Manager,
Frias Properties of Aspen Snowmass

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BUILDING IQ



This graph shows the total gross floor area, in square feet, that was benchmarked in 2025, grouped by building use type.

(Source: ENERGY STAR Portfolio Manager, 2025)

Benchmarking Results



MTCO₂e = Metric Ton Carbon Dioxide Equivalent

Greenhouse gases (GHGs) trap heat in the atmosphere and drive climate change. Because each gas warms the planet differently, emissions are measured in carbon dioxide equivalents (CO₂e)—the global standard for comparing their total climate impact on a common scale.³

Greenhouse Gas Emissions

Tracking greenhouse gas emissions from Aspen's buildings is critical to reaching the City's climate goals and creating a healthier community.

In 2024, benchmarked buildings in Aspen emitted a total of 34,110 MTCO₂e. To put that into perspective, it would take 34,215 acres of U.S. forest to sequester that much carbon over the course of a year.

This report references the "Top Five Use Types"—building use types that comprise the majority of the benchmarked square footage. Hotels, multifamily housing, mixed-use properties, offices, and other types of residential lodging comprise 72% of the benchmarked square footage.



Building Highlight

The Little Nell

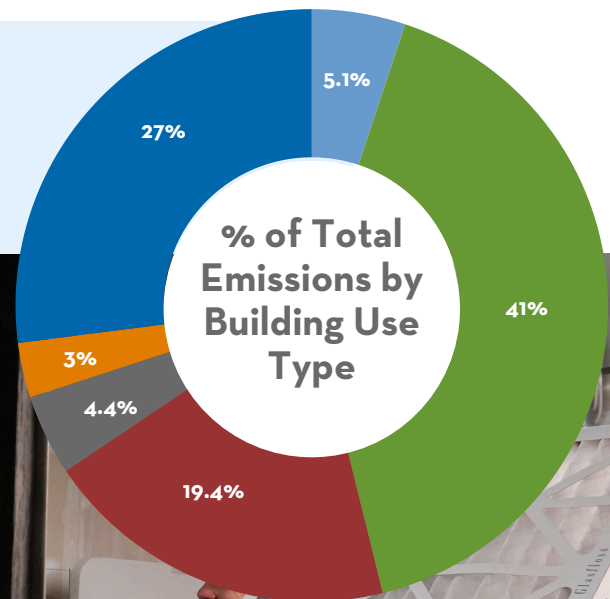
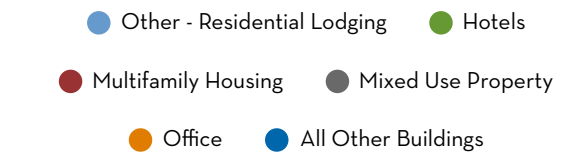
"CORE initially provided funding for an engineering study of our property that resulted in a detailed list of recommendations. Their continued support through a commercial grant will make our facility improvements both sustainable and financially feasible."

Marlaina Murphy,
Sustainability Manager,
Aspen Hospitality

Benchmarking Results Continued...

This graph shows how these five use types make up 72% of the total emissions of all benchmarked buildings in 2025.

(Source: ENERGY STAR Portfolio Manager, 2025).



Gas, therefore, is the primary source of all benchmarked building emissions, as these five use types emitted 73% of all the emissions from benchmarked buildings in 2024. Electric emissions will continue to fall as Holy Cross Energy works towards 100% renewable sourced electricity by 2030, and City of Aspen Electric maintains their current 100% renewable power supplies since 2015.

Electrifying buildings in Aspen will have the greatest impact on reducing emissions, with targeted efforts to electrify hotels and multifamily housing being particularly relevant.



Energy Use Intensity



EUI = Energy Use Intensity

EUI refers to the amount of energy used per square foot annually.²

Energy Use Intensity (EUI) tracks a building's energy use and allows for comparison to other buildings of similar size or use type. This helps building owners, managers, and the City of Aspen identify where energy efficiency improvements would have the most significant impact and where more support is needed.

Aspen is in Climate Zone 7 (CZ7), or a “very cold” climate. There are limited data from other CZ7 areas resulting in a small sample size, and results should be interpreted cautiously. The second graph below shows that the top five building use types in Aspen have significantly higher EUIs than the CZ7 Median EUIs, with multifamily housing buildings coming in 95% above the median.

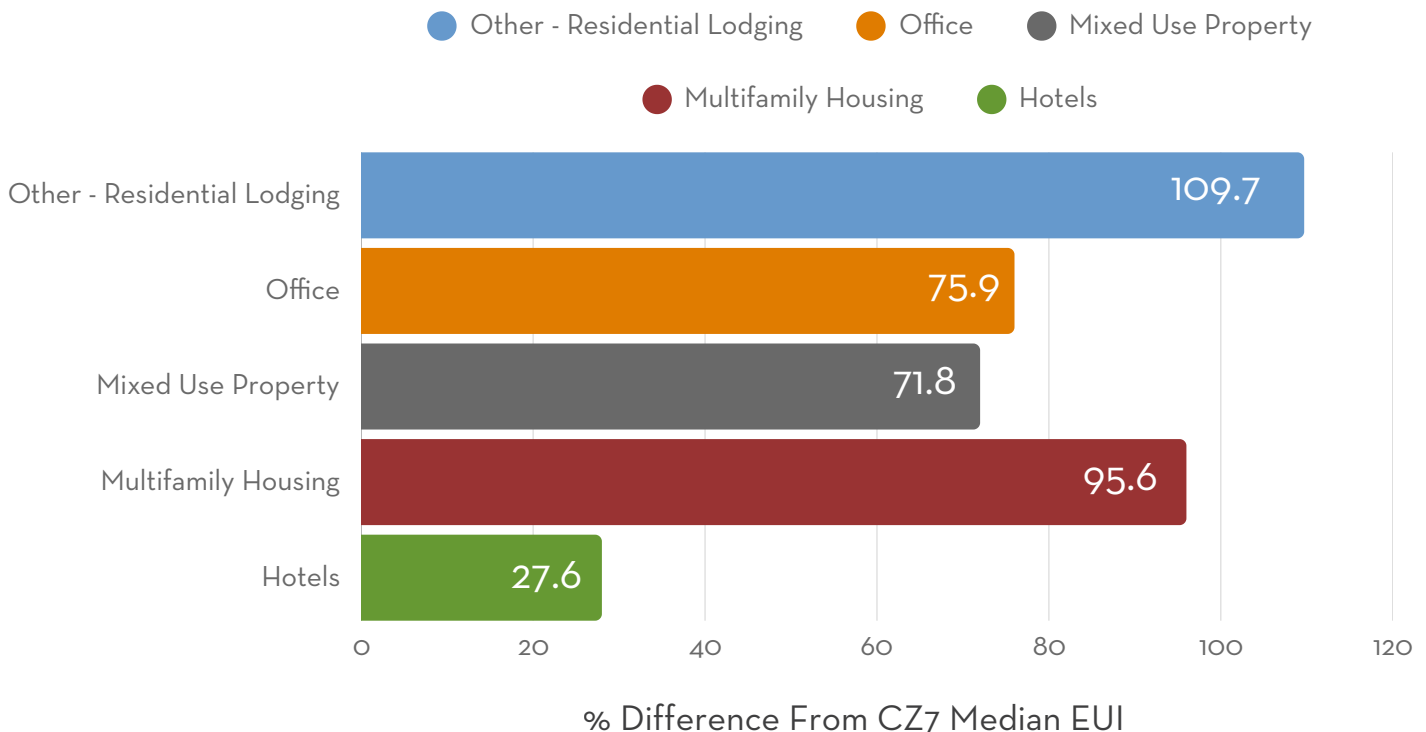
Disclaimer: While a low EUI implies that a property has efficient energy use, some property types will always require more energy because of their amenities or critical services. An elementary school, for example, has a relatively low EUI compared to a hospital.²

This graph shows all use types use more energy on average than other buildings of the same use type in CZ7.

(Source: ENERGY STAR Portfolio Manager, 2025)



% Difference of Aspen Buildings From CZ7 Median EUI

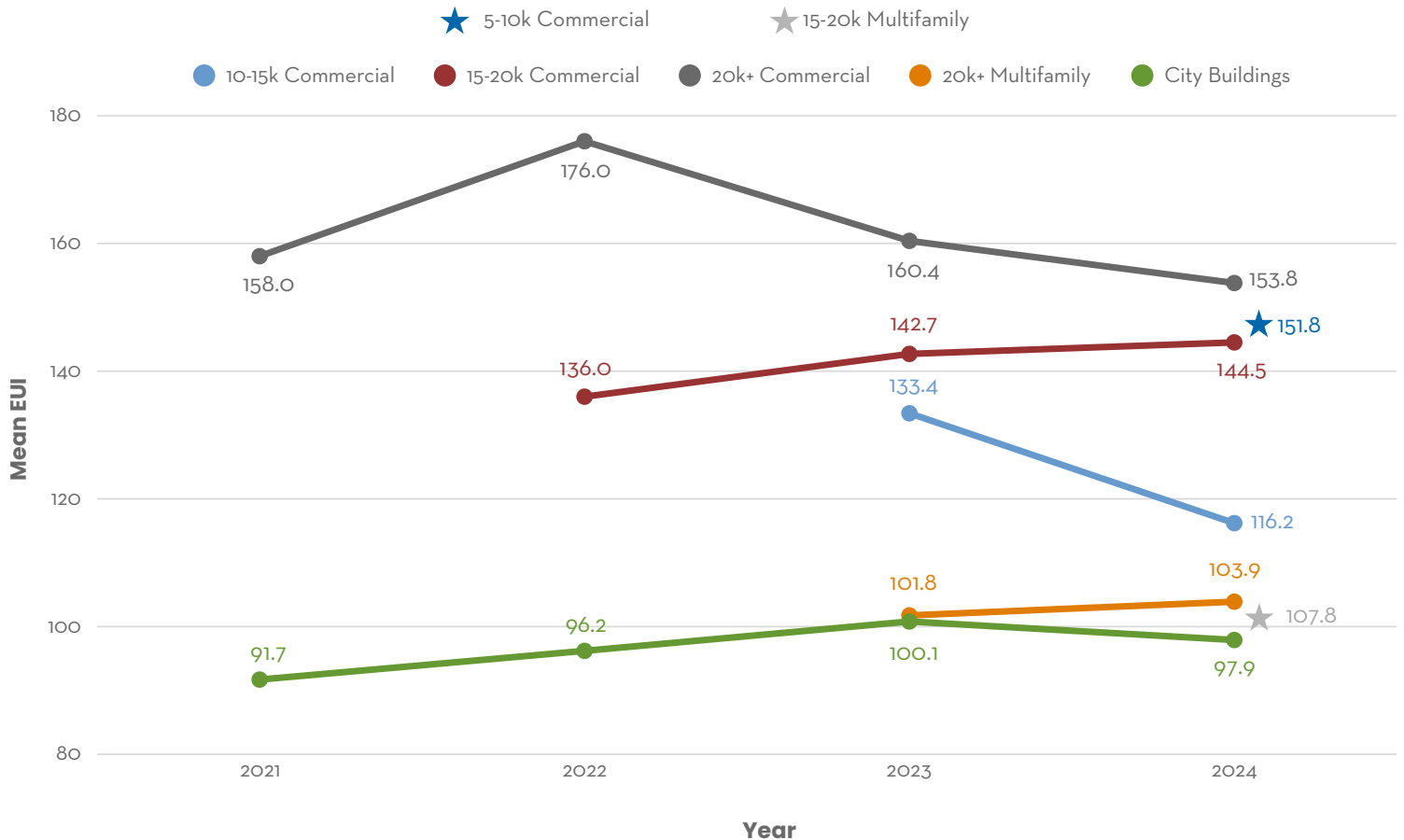


Benchmarking Results Continued...



Mean EUI by Benchmarking Category

This graph shows how Aspen buildings are doing compared to their benchmarks in previous years.



These trends provide a sense of how buildings are performing collectively over time, with each additional year of benchmarking data improving the program's ability to capture a more comprehensive view of energy usage in buildings community-wide. Valuable trend information has also been provided to each individual building, enabling them to understand their performance at a more granular level, and take action to improve.



Water Use Intensity



WUI = Water Use Intensity

WUI refers to a building's water use and is expressed as gallons per square foot per year.²

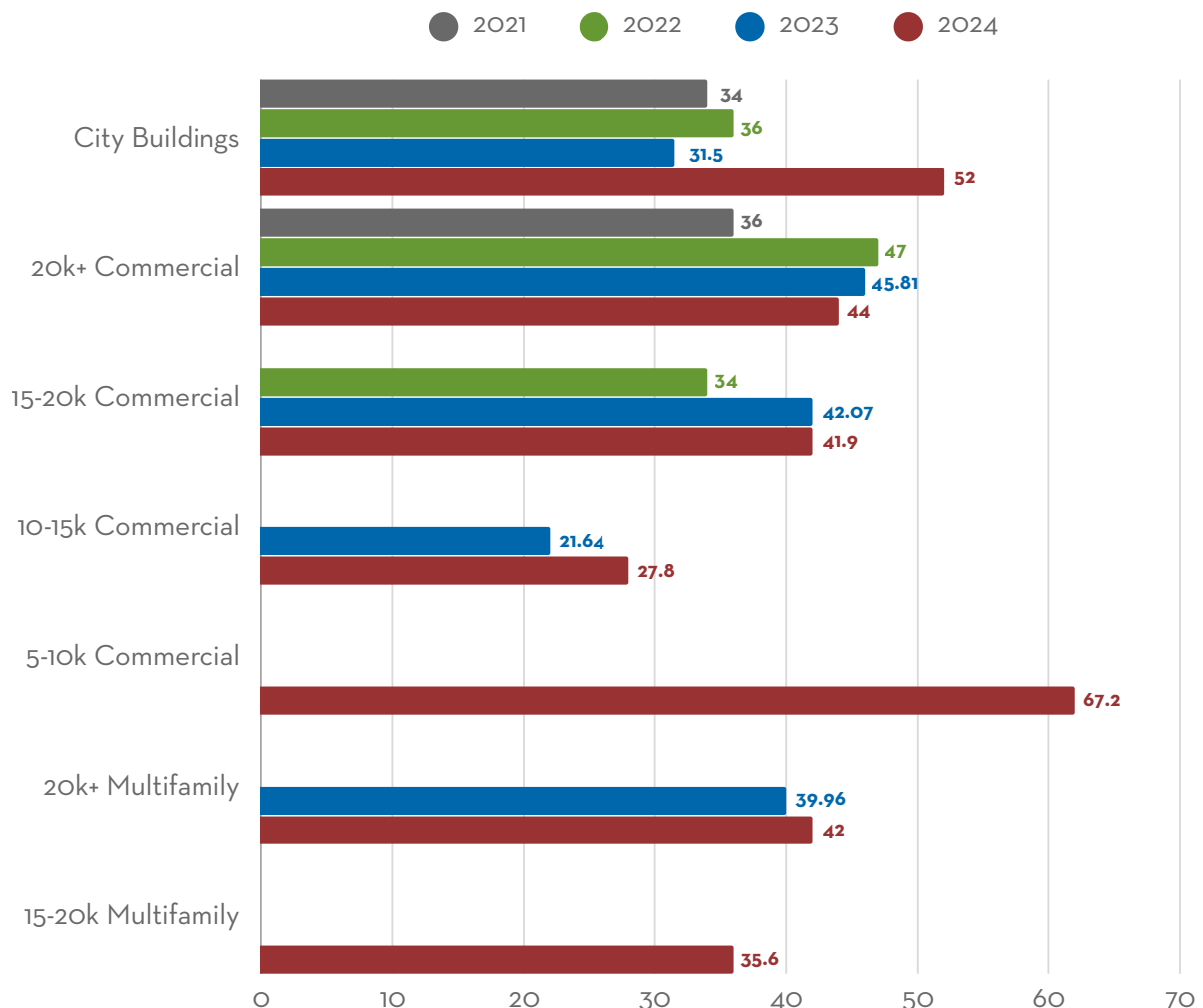
Water Use Intensity (WUI) is another important metric of a building's performance. The benchmarking process collects and reports on WUI in the same way it does with energy. As more data becomes available from similar communities, Building IQ will involve working with water experts to understand how Aspen's buildings compare and how they can improve. This will be an opportunity to collaborate with the City of Aspen Utilities in support of their water efficiency plan.



This graph shows how WUI in Aspen buildings has changed year over year.
(Source: ENERGY STAR Portfolio Manager, 2025).

**After investigation by CORE, it was determined the spike in WUI in City Buildings may be the result of improved data quality in 2025, rather than a change in actual consumption from 2024.*

Mean WUI by Benchmarking Category



Benchmarking Outcomes

In October 2025, Building IQ Benchmarking Scorecards were distributed to property owners detailing their building's energy and water consumption and individualized recommendations on how to improve their buildings.

Common Recommendations for Building IQ Buildings

- Electrifying heating systems by fuel switching from gas to electric heat pumps.
- Optimizing existing systems, such as adjusting boiler temperatures, using heat tape timers, upgrading building automation, or retro-commissioning.
- Choosing Energy Star and induction cooking and kitchen equipment.
- Enhancing building envelopes by adding insulation to roofs, walls, slab, and crawlspaces.



From Recommendations to Action

CORE has supported Building IQ buildings by providing technical advising and over \$400,000 in funding for 15 building retrofit projects since the program's inception, including:

\$178k Grant for heating system upgrades

\$15k Grant for control systems updates to improve efficiency

\$15k Grant for electrification study

As Building IQ participants monitor their buildings' performance over time, new project opportunities will arise related to regular maintenance, repairs, or building remodels, and it is expected that the number of projects and the need for grant funding will increase each year.



