

# Summary Report 2022

Buildings account for 57% of Aspen's greenhouse gas emissions, and in order for the City to reach our climate goals, we need to act fast to reduce emissions from the built environment.

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**INTRODUCTION** The City of Aspen's Building IQ (BIQ) Program directly addresses emissions from existing buildings by requiring buildings to track and report their energy and water use and work towards efficiency through building performance standards. Building IQ focuses on existing buildings, the majority of the community's building stock, but works in tandem with the city's building codes that apply to new construction and major renovations. BIQ will help the community reduce emissions to reach our science-based targets of 63% greenhouse gas emissions reductions by 2030 and 100% by 2050.

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**The Building IQ ordinance, effective June 1, 2022, has two phases:**

**PHASE 1** Requires covered buildings to track and report their energy and water consumption over time in an annual process called benchmarking.

**PHASE 2** A building performance standard (BPS), requires property owners to meet performance targets by actively improving their buildings over time. As part of the National BPS Coalition, Aspen joins other cities and states, including the State of Colorado, in enacting innovative policy. Aspen's benchmarking policy goes beyond the state's by including commercial buildings smaller than 50,000 square feet and by requiring water use benchmarking.

The City of Aspen collaborated with the Community Office for Resource Efficiency (CORE) to implement benchmarking for covered buildings in the first phase of Building IQ in 2022.

# Key Takeaways

## METRICS

**24** Commercial Buildings  
20,000 Square Feet  
and Greater

**27** City-owned buildings

**92%** Compliance Rate

In 2022, CORE and the City of Aspen benchmarked 24 commercial buildings 20,000 square feet and greater and 27 city-owned buildings. Covered buildings had a 92% compliance rate, which is on par with first year benchmarking rates in other cities.

It is important to our City Council to maintain data privacy in benchmarking. Therefore, this year's small sample size of benchmarked buildings limits the shareable data.

## PROCESS

- Early outreach, defined timelines, cooperation, and a well-defined follow-up process is essential for success.
- Data collection from utilities is fundamental in benchmarking buildings efficiently; processes and timelines vary among utilities, requiring additional coordination.
- Early site visits are paramount to determine accurate utility meter information.
- Identifying a comprehensive list of utility meters and associated account numbers and owners for a whole building, as well as obtaining data release consent forms was difficult.
- Benchmarking individual buildings, rather than a group of buildings or "campus" may prove more useful in generating insights for energy and water improvements.



# OUTCOMES

- For the first time, the City of Aspen and CORE have comprehensive energy and water usage data for large commercial and City-owned properties. As multi-year trends emerge, this data will support efficiency efforts and building performance standards implementation.
- Building managers now have comprehensive energy and water usage data in a single tracking tool, which can inform management and efficiency efforts.
- Energy analysis includes combined electricity and natural gas usage in a building. Future analysis that singles out electricity use and natural gas use will be valuable for building managers, CORE, and the City to glean additional insights from benchmarking data.
- For newer buildings, data insights will also be valuable for evaluating and planning building code adoption and enforcement.
- As expected, the energy and water usage varies significantly among buildings benchmarked in 2022.
- Most commercial buildings benchmarked have little to no irrigation. Efficiency and intensity of use of equipment in commercial kitchens, commercial laundry facilities, and guest room showers and toilets drove water use intensity in buildings.
- Key factors for buildings' energy use intensity were the efficiency and intensity of use of space heating, cooling and ventilation, water heating, building operation and maintenance practices, building facade design, various types of outdoor heating, and occupancy and business levels.



# Next Steps in 2023



In 2023, the City and CORE will continue to partner to benchmark City-owned buildings and commercial buildings 15,000 square feet and greater. Year over year trends, as well as additional single year benchmarks, will be leveraged by CORE and the City to inform efficiency and decarbonization efforts, such as BPS.

The City has convened a BPS Stakeholder Committee between January-May 2023.

The BPS Stakeholder Committee will provide input to City staff in developing draft Building Performance Standards Guidelines for existing buildings that helps the City of Aspen reach its goal of zero greenhouse gas emissions by 2050. Additionally, these Guidelines may consider related opportunities to develop workforce skillsets, foster job creation, and improve health and equity.



The City of Aspen's Climate Action Office promotes environmental stewardship and leads climate action efforts in Aspen and throughout the region.



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CORE is a nonprofit, providing energy advising, assessment, and financial incentive programs facilitating the completion of impactful energy and electrification projects in businesses, multifamily complexes, and homes. CORE collaborates with local government and utility partners to scope and fund the work described above, and additional tailored programs and projects in support of communities' greenhouse gas emissions reduction goals. CORE is also supported by generous philanthropic donors.



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