



# City Manager's Office

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## MEMORANDUM

**DATE:** December 1, 2022

**TO:** Mayor and City Council

**THROUGH:** Doug Thornley, City Manager Approved Electronically

**FROM:** Suzanne Groneman, Sustainability Program Manager  
Jackie Bryant, Assistant City Manager

**SUBJECT:** 2021 Energy and Water Efficiency Program Report (Benchmarking Ordinance)

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Under RMC 14.30, the City produces an annual report based on the data provided under the City's Energy and Water Efficiency Program ("Benchmarking Ordinance"). The Benchmarking Ordinance requires buildings over 30,000 square feet report their energy and water use to the City of Reno.

Report highlights include:

- 21,427,641 square feet covered
- 166 total properties
- Hotel, office, and fire and police station EUI is higher than the United States median EUI\*

The City is presently piloting a third-party software for better management of the Benchmarking Ordinance.

Data for the 2022 reporting year is due by April 1, 2023.

\*EUI stands for "Energy Use Intensity" and measures how well a building uses energy.



**RENO**  
RESILIENCE

**2021 ENERGY  
& WATER  
BENCHMARKING  
REPORT**

City of Reno

Energy and Water Efficiency Program





## INTRODUCTION

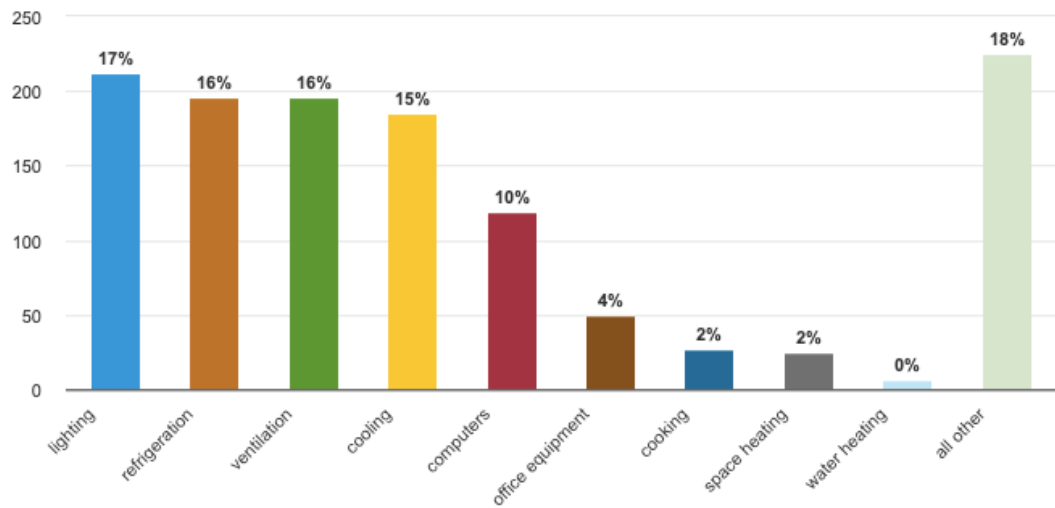
In the face of changing climate, Reno is proud to be a leader in sustainability. The City of Reno has a commitment to reduce GHG emissions 40% by 2030 and is one of just 120 cities nationwide to be LEED for Cities certified through the US Green Buildings Council. With Reno warming faster than any other city in the country, our community knows that the time to act on climate change is now.

But the city knows that where there are challenges, we see opportunities. 66% of the City's emissions originate from the building sector. Through the process of collecting energy emissions and water use data from large buildings, we will deepen our understanding of how we perform and where we can create economic opportunities for a healthy, sustainable city.

The City is pleased to share the performance metrics of large buildings, tracked in 2021 and reported in 2022.

Electricity use in U.S. commercial buildings by major end uses, 2012

total = 1,243 billion kilowatthours (kWh)



Note: All other includes motors, pumps, air compressors, process equipment, backup electricity generation, and miscellaneous appliances and plug-loads.

Data source: U.S. Energy Information Administration, 2012 Commercial Buildings Energy Consumption Survey, Consumption and Expenditures, Table E5, May 2016



# Energy and Water Efficiency Program

## 2021 Benchmarking Data



### The City: leading by example

35 of the 166 properties reporting in 2021 are municipal properties.

*Did you know* the reporting threshold for municipal buildings is lower than the commercial building threshold? All municipal buildings over 10,000 square feet are required to report.



**Energy**

**51.2**

**kbtu/ft<sup>2</sup>**

Median Site Energy Use Intensity (EUI)

**82,194**

**metric tons of CO<sup>2</sup>**

Total Greenhouse Gas Emissions



**Water**

**22.9**

**gal/ft<sup>2</sup>**

Median Water Use Intensity (WUI)

**2,144,033**

**gallons of water**

Total Water Usage

## Background Data



**32%** **166**

Properties Reporting  
+41 from previous year



**11%** **21,427,641**

Total Square Feet Covered  
+2,081,180 from previous year



**42%** **82,194**

Metric Tons of CO<sub>2</sub> Emitted  
+24,395 from previous year



## Useful Terms

**Energy Use Intensity (EUI)** measures energy use per square foot. The lower the EUI, the lower the energy use of the site

**Intensity** Demonstrates how efficiently energy and water are used

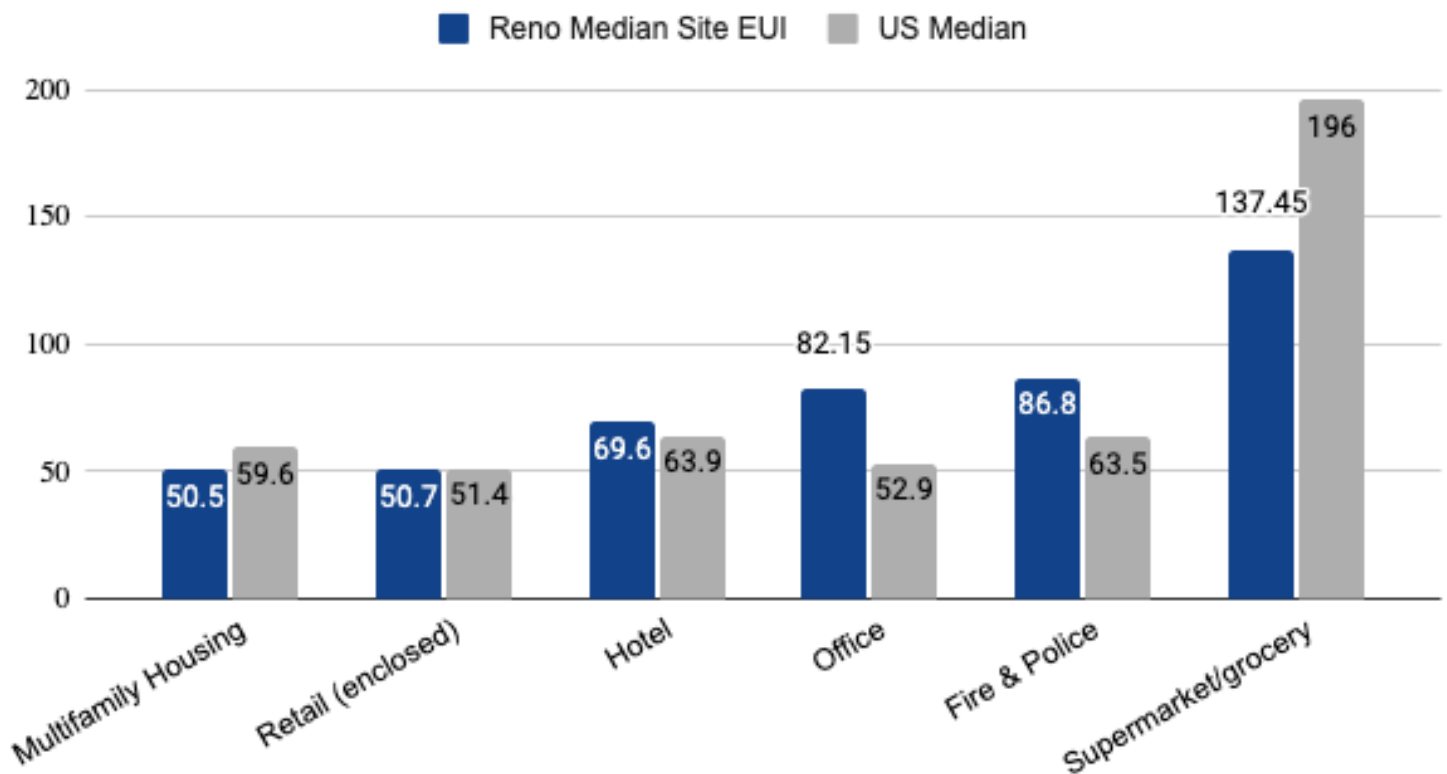
**Benchmarking** is the process of collecting and comparing performance data across a sector.

**%** Indicates increase from previous year.

# THE ORDINANCE

The Reno Energy and Water Efficiency Program requires commercial, institutional, and multifamily **buildings above 30,000 square feet** to report their water and energy use to the City. This data will be collected and assessed annually to determine Reno's progress towards its longer-term sustainability targets. This process, known as **benchmarking**, will enable building owners to assess how their properties compare to similar buildings in the city and make informed decisions on how to increase efficiency. The benchmarking process will be a crucial part of meeting the City's goal to reduce GHG emissions by 40% from 2008 levels. The data reported during the benchmarking process will also be used as a baseline for buildings looking to decrease emissions in compliance with [the upcoming building performance targets ordinance](#).

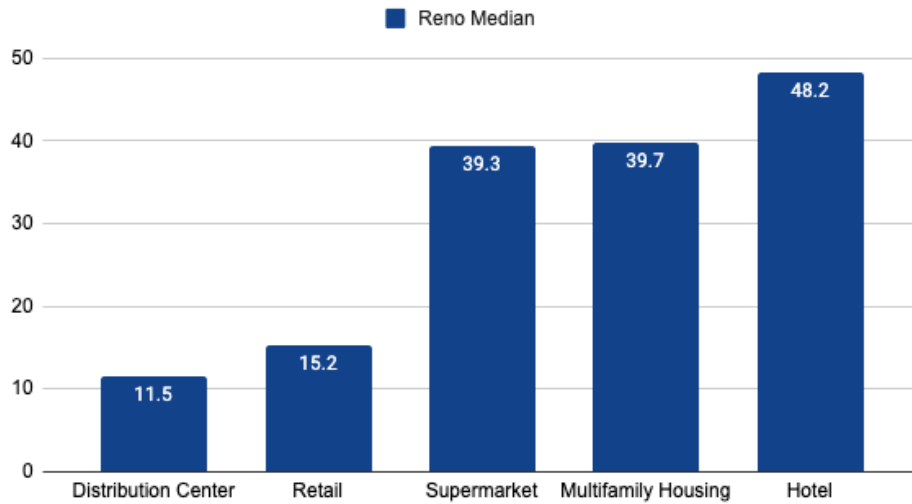
## Median Site EUI by Property Type (kBtu/ft<sup>2</sup>)



*Energy Use Intensity (EUI) measures energy use per square foot. The lower the EUI, the lower the energy use of the site.*



Median Water Use Intensity (Gal/ft<sup>2</sup>) by Property Type



*Like EUI, Water Use Intensity (WUI) measures water consumption per square foot.*

## LOOKING AHEAD

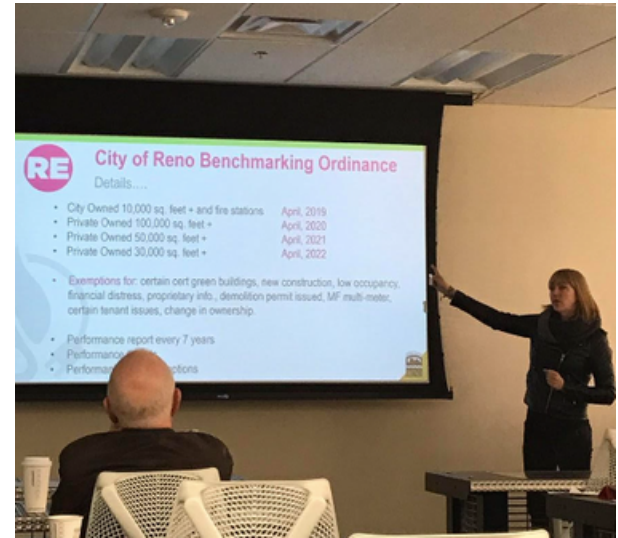
The City is using [cutting-edge energy tracking software](#) beginning in 2022 to manage all incoming building performance data. This tool will streamline the data collection process and help ensure that all stakeholders are able to play an active role in sharing and using their data.

Beginning in 2026, buildings may also have to [comply with performance targets](#). Performance targets might include metrics such as Energy Star score or Energy Star water score of fifty or greater, decrease in site EUI or WUI of 10% or more from baseline years, or other similar metrics, to be evaluated by a qualified service company. Read more about targets, reporting schedules, pathways to compliance, and more [in Reno's Administrative Code](#).

The data collected during the benchmarking process marks an important step towards meeting Reno's long-term sustainability goals, including informing building performance targets and baseline measures. Building data will also inform city priorities moving forward, such as capital improvement projects or initiatives to improve public health in the City.

# You can't manage what you don't measure.

When building owners and managers have up-to-date information on their building's performance, they can make more cost-effective investment decisions.



## RESOURCES FOR BUILDING OWNERS

- Visit [Reno Resilience's website](#) for further information on the ordinance, compliance guides, trainings, how to report, and exemption requests
- Read about building energy policies and learn how to manage your portfolio on [the Center for Building Performance Standards](#)
- See [NREL's guide on how to maximize energy savings](#) and find funding opportunities for small businesses
- [Find financing for efficiency projects](#) through the US Office of Energy Efficiency
- [NV Energy Powershift](#) can help with business energy incentives, tips, and free energy assessments
- Become a Green Business by joining the [Nevada Green Business Network](#)
- [The Commercial Property Assessed Clean Energy \(C-PACE\) Program](#), launched by the City in 2019, provides financing for renewable energy and efficiency and resiliency projects.

*Building owners should speak to their tax professional about **federal tax credits** for energy efficiency projects, available until 2023. These, along with local incentives, can decrease the cost of these capital projects.*