Sustainability
CITY OF
RENO

Energy and Water Benchmarking Report: 2023

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Introduction

In the face of changing climate, Reno is proud to be a leader in sustainability. The City of Reno developed a Sustainability and Climate Action Plan with goals to reduce energy and water usage in City facilities by 20% by 2025. The plan further outlines goals to reduce emissions across the City in accordance with worldwide emissions reductions targets. Reno is also one of only 160 cities worldwide to be certified through LEED for Cities by the United States Green Buildings Council.

In an effort to reduce emissions in our community, the Reno City Council passed Ordinance #6493 in 2019 requiring large commercial buildings to report their energy and water data. Benchmarking energy and water data helps the City to deepen our understanding of how we perform and where we can create economic opportunities for a healthier and more sustainable community.

Purpose

The Reno Energy and Water Efficiency Program requires commercial, institutional, and multifamily buildings 30,000 square feet and above to report their water and energy use to the City. The threshold for municipal buildings is 10,000 square feet. This data is 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. 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.

Definitions

- **Energy Use Intensity (EUI):** Measures energy use per square foot in kBTU/ft^2. A lower EUI means energy use is lower at the site.
- **Greenhouse Gas Emissions:** Chemicals that trap heat in the atmosphere and are released from burning fossil fuels to create energy.
- **Intensity:** Refers to the energy consumed by a specific property being reported for benchmarking (ENERGYSTAR).
- **Site Energy:** Refers to the energy consumed by a specific property being reported for benchmarking (EnergyStar).
- **Water Use Intensity (WUI):** Measures water use per square foot in gal/ft².

Data

Each year, covered properties must report their building's total square footage, site and source EUI, and greenhouse gas (GHG) emissions. Buildings must also report their building type so comparisons can be made across similar buildings. Below is the summary data collected from all properties that reported to the benchmarking program in 2023. The City of Reno saw an increase in buildings that reported, square feet of area reported, as well as a significant increase in compliance with the ordinance.

Metric	Number	Change from Previous Year
Number of Properties Reported	256	+31
Total Square Feet of Area Reported	46,571,513	+12,058,705
Median Site Energy Use Intensity (kBTU/ft^2)	56.1	-.8
Percentage of Compliance	51	+30

This year the manager allowed a water exemption for all properties per RMC 14.30.005. Typically, water data such as total water use and water use intensity(gal/ft^2) would be reported here, however, it was not collected this data cycle and cannot be displayed.

Metric	Number	Change from Previous Year
Total Greenhouse Gas Emissions (Metric Tons CO_2e)[1]	229,910	+106,995
Greenhouse Gas Emissions Per Square Foot	.005	+.001

[1] Greenhouse Gas emissions are reported as a total and as an average per area. A direct comparison of total GHG emissions between years 2022 and 2023 is not advised as two properties mistakenly reported erroneous emissions numbers in 2022. Without the two outlying data points, the emissions per square foot number for 2022 would be .004. Thus average emissions went up in 2023.

Emissions have increased since 2022, and this is likely due to an increase in compliance and total number of buildings reporting energy data. Once compliance rates stabilize, more accurate comparisons can be made between emissions year over year.

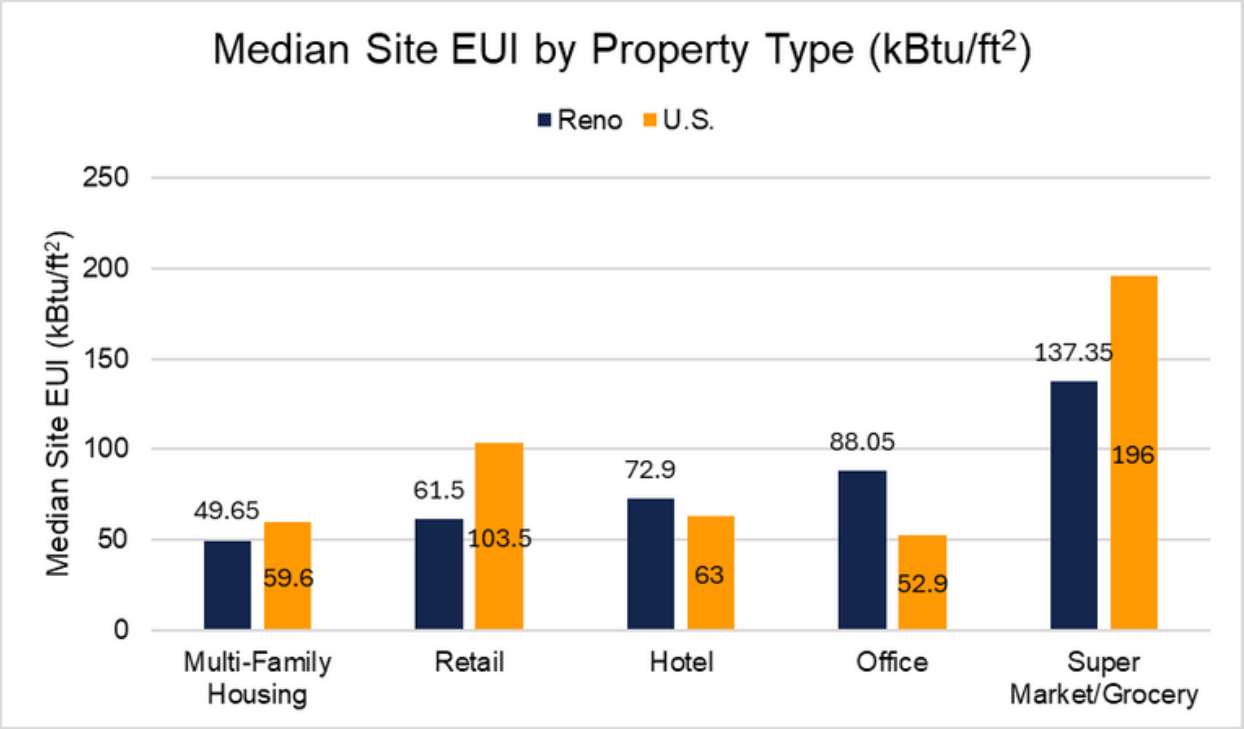

Figure 1 Comparative bar chart of Median Site EUI by property type for Reno and the United States. The property types shown in this graph demonstrate several of Reno's highest median EUI values.

In 2023, Reno properties had a lower median site EUI than the U.S. national averages for Multifamily Housing properties, Retail properties, and Supermarkets/Grocery Stores. Conversely, Reno still has a high median site EUI for offices and hotels.

ENERGY STAR Scores

An ENERGY STAR Score measures how well a building is performing. It serves as a metric that allows operators to compare energy use to other buildings. A score of 50 represents median energy use (ENERGY STAR).

Top Ten Properties

1. HERE Reno
2. Riverwood Apartments
3. Basecamp
4. Park Place at Reno
5. Vintage at the Crossings
6. Palomino
7. Vida Luxury Apartments
8. Altitude by Vintage
9. 10880 Lear Blvd
10. Sagecliff Apartments

Lowest Ten Properties

1. Clayton Middle School
2. 6840 Sierra Center Pkwy
3. Desert Heights Elementary School
4. PHS | St. Mary's Medical Plaza
5. 245 E. Liberty
6. 200 S Virginia Street
7. 7350 Silver Lake Road
8. 5370 Kietzke Lane
9. South Reno Medical (Copperfield)
10. Atlantis Casino Resort Spa

Figure 2 Park Place at Reno

Looking Ahead

To view the 2023 data file of properties that reported under the Benchmarking Ordinance, please view this link.

Upcoming Building Performance Standards

Beginning in 2026, some buildings will 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.

Building Scorecards

Buildings that report the required benchmarking data will receive an annual scorecard with highlights from their submission, as well as resources for improving efficiency.

Sharing ENERGY STAR Portfolio Manager Profile

Buildings will continue to share their ENERGY STAR Portfolio Manager (ESPM) with the City of Reno, rather than returning a data request file. Resources will be published at the City of Reno's Energy and Water Efficiency webpage.

Resources

- Visit the Energy and Water Efficiency 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