SUSTAINABLE ROCHESTER
BUILDING ENERGY BENCHMARKING REPORT 2020

PROGRAM HISTORY

Beginning in 2018, the City of Rochester has helped buildings limit energy waste and reduce greenhouse gas emissions through its benchmarking program. The number of buildings participating has been over 100 the past two years, which is impressive especially considering the program is entirely voluntary. By benchmarking, Rochester building owners are taking an important first step to improve building energy management and efficiency.

EFFICIENCY GAINS IN PUBLIC BUILDINGS

Public buildings make up a large share of the participants in Rochester's program. These facility types include schools, recreation centers, office buildings, and larger facilities such as for waste management. Beginning in early 2020, the COVID-19 pandemic changed the way we use buildings both in the short and long term (see page two for more details). Instead of "setting it and forgetting it," public facility managers were able to adjust the usage in their buildings to save money for taxpayers during 2020.

While 2020 was an incredibly tough year in our community, we're proud to report that public facility managers decreased energy usage in their buildings by 13% on average versus 2019.

104 Benchmarked properties

used about 1.83 million MMBtu of energy, equal to the energy consumed by:

10,880 households

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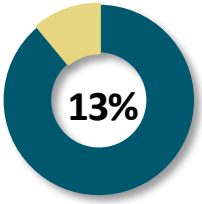
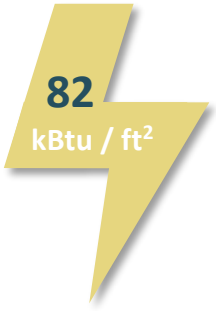


of citywide building energy

6 percent of citywide GHG emissions

The buildings had the following performance:

ENERGY STAR Score



Median Site Energy Use Intensity (EUI)

WHAT IS BUILDING BENCHMARKING?

Benchmarking is the ongoing review of building energy and water performance to ensure a building is using energy and water as anticipated -- performance compared to its own anticipated performance over time or the performance of peers. Benchmarking combines two silos of information that have often never been merged before: utility meter consumption and building characteristics. When used together, this information provides new insight to building owners, occupants, and efficiency resource providers that is valuable in building management, investment, sale, and lease decisions.

Program Participation

Rochester building owners and managers benchmarked 104 facilities representing about 13% percent of city-wide energy use in 2020. As the table to the right shows, the total square footage benchmarking in Rochester has increased slightly over the three program years, while the number of facilities has been more variable. Variable participation is a good reminder of the challenges of a voluntary benchmarking program; when an owner does not want to participate, they don't have to, whereas when cities pass a benchmarking policy, all properties that meet the size threshhold must benchmark every year. Mandatory programs in other Minnesota cities typically have participation greater than 80% and are able to engage with hundreds of buildings.

	2018	2019	2020
Total Area of Reported Buildings (million square feet)	14.4	14.6	15.1
Number of Properties Benchmarking	90	112	104
Median Site EUI (not weather-normalized)	85	83	82

Impact of COVID-19 Pandemic

Centrally-managed portfolios of buildings, like public and healthcare facilities, dominated the 2020 participant list. Although Median Site EUI has trended down over the past three years, total energy consumption from the buildings enrolled in this program has increased by about 8% from 2018 to 2020. As discussed earlier in this document, public facilities' energy usage decreased from 2019 to 2020; thus, it seems this trend is being driven by private facilities, whose energy usage increased by 34% on average since 2019. While any self-reported data set may be prone to errors, a strong trend like this could be driven by what is happening on the ground. One potential cause of this decreased efficiency is that many of the private sector participants in the program are healthcare facilities, who likely were required to increase ventilation during the COVID-19 pandemic. Increased ventilation generally causes HVAC systems to consume more energy.

Interested in participating? Contact the City of Rochester's Sustainability Coordinator, Lauren Jensen: **ljensen@rochestermn.gov**

CITY OF ROCHESTER MINNESOTA

DMC Destination Medical Center