FACT SHEET

RE ENERGIZE

EXPLORING BENCHMARKING AND TRANSPARENCY

BACKGROUND

The City of Reno is working to launch innovative building-focused policies and programs that drive investments in energy and water efficiency and green building. In Reno, buildings account for 65 percent of the community's carbon pollution and often up to 30 percent of energy used in buildings is wasted. Energy and water efficiency improvements can make our buildings better places to work and live while saving money and increasing tenant comfort.

Reno has become one of the fastest warming cities in North America. By taking action with a variety of initiatives, the City is helping Reno reduce our carbon footprint.

EXPANDING GREEN BUILDING

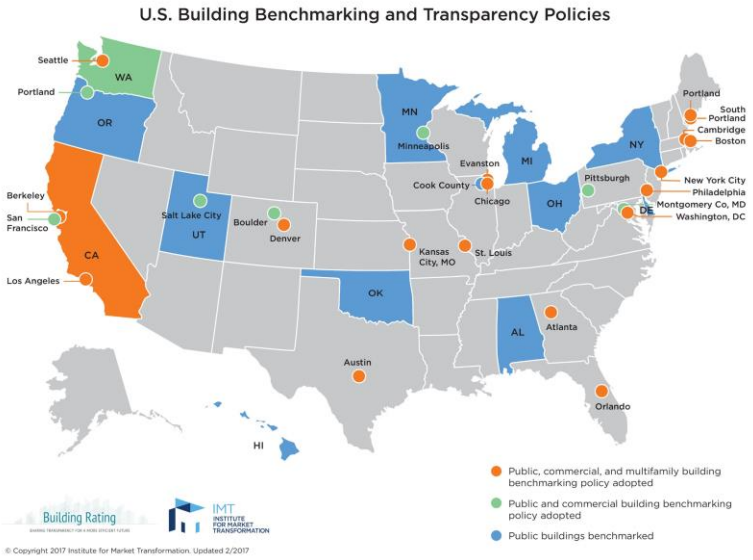
In U.S. cities and cities around the world, green building has risen to the top as an effective strategy to reduce carbon pollution while growing the local economy. **Building energy benchmarking** is the first step to making cost-effective efficiency improvements in Reno's buildings. Building benchmarking, tune-ups (retro-commissioning) and building retrofit programs and policies have been shown to create an abundance of local jobs —such as contractors, engineers, and construction professionals.[1]

WHAT IS ENERGY BENCHMARKING?

You can't manage what you don't measure. Many building owners and facility managers in Reno are unaware of how their buildings perform and impact our local economy, public health, and the environment. Energy benchmarking the process of collecting building energy and water usage data over time using standardized metrics to establish a baseline and provides. It provides a way to evaluate the building's energy use over time, compare to similar buildings, and determine the magnitude of potential energy savings. When building owners and managers understand their building's performance they can make smarter, more cost-effective operational and capital investment decisions.

CITIES AND STATES BENCHMARK BUILDINGS

Benchmarking is the first step toward improving building energy performance. The building sector is the largest energy user in the U.S., accounting for roughly 40 percent of total energy consumption. Cities and states are leading the way to reduce building energy consumption and are taking steps to manage building energy data to discover inefficiencies and implement projects to improve performance. Benchmarking will give owners the information they need to reduce their energy use and carbon pollution.



Graphic: Institute of Market Transformation

DIRECT BENEFITS OF BENCHMARKING

Reveals Hidden Problems: Benchmarking provides high-level building efficiency information that can flag equipment failure or unexpected operation which are common causes of unnecessarily high operating costs. A low ENERGY STAR score could necessitate a recommissioning study which may reveal equipment and systems malfunction. This is a benefit to local government operations, as well as private sector operations.

RENO RESILIENCE

LEARN MORE

REENERGIZE RENO is a program launched by RENO Resilience, the City of Reno's Sustainability & Climate Program.

Visit www.reno.gov/reenergize to learn more about joining REENERGIZE RENO, who has signed up, and how local building owners can save money through energy and water efficiency measures in their buildings.

RESOURCES

- *U.S. DOE Better Buildings Challenge, https://betterbuildingsinitiative.energy.gov/*
- *Better Buildings Challenge Overview, https://betterbuildingsinitiative.energy.gov/sites/default/files/attachments/BBC_Overview-5-7-17.pdf*
- *ENERGY STAR Portfolio Manager, https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager*
- *ENERGY STAR "A Better Building. A Better Bottom Line. A Better World", https://www.energystar.gov/ia/partners/publications/pubdocs/C+I_brochure.pdf?906e-669b*

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SPONSORS

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Improves Casino/Hotel Operations: Reno's building profile is unique and comprised of commercial, industrial, housing, and casino and hotel properties. Sustainable business practices are rapidly gaining visibility and importance in the gaming industry. In addition to new regulations governing sustainability practices, patrons increasingly demand that casinos share their commitment to the environment. While implementing sustainability initiatives can be challenging, it also brings great benefits – new patrons, improved efficiency, and increased profitability. Yet, because of limited resources, gaming companies are unsure which initiatives are right for their patrons and business practices. Building energy measurement and verification are key to a successful sustainability program. Accessing, consolidating and reporting on the right data to track the effectiveness of sustainability initiatives is necessary for accountability to corporate initiatives, patrons and regulators. Forecasting impacts and performing what-if analysis on potential projects lets owners design projects for maximum effectiveness.[2]

Energy and Cost Savings: Buildings across the U.S. that benchmarked over a 3-year time span reduced energy consumption by an average of 2.4 percent annually, which for a 500,000-square-foot office building could result in cumulative energy cost savings of $120,000. In Washington, D.C., buildings that benchmarked from 2010 to 2012 under the District's ordinance have reduced energy use by 9 percent on average, adjusting for weather, over that 3-year period.[3]

Higher Occupancy and Rents in Leased Spaces: An analysis of data from a single portfolio of more than 100 U.S. office buildings from 2004 to 2013 found that ENERGY STAR certified buildings experienced 9.5 percent higher occupancy rates and 2.5 percent higher rental rates than conventional buildings. The study also found that buildings certified as energy efficient enjoyed a higher likelihood of lease renewal and average rent concessions to tenants of just 7 percent compared to 11 percent for conventional buildings. On average, ENERGY STAR- labeled buildings also rent for $2.00-$3.00 more per square foot.[4]

Direct Resources to the People and Resources Most in Need: Affordable resources are constantly in high demand in the Reno market. Once building efficiency information is available, local policymakers and electric, gas, and water utilities can better identify and develop valuable policies, programs, and financial tools to focus on the areas of the market with the greatest opportunities for efficiency savings.

INDIRECT BENCHMARKING BENEFITS

- One dollar spent on energy efficiency is more economically productive than a dollar spent on buying energy.
- Spending on energy efficiency stays local. Energy *consumption* costs are more likely to leave the local market.
- Energy efficient properties are better long-term investments for owners and financiers.
- Jurisdictions with benchmarking policies have seen reductions in local greenhouse gas emissions.

[1] U.S. Environmental Protection Agency. "A Better Building. A Better Bottom Line. A Better World." 2010. https://www.energystar.gov/ia/partners/publications/pubdocs/C+I_brochure.pdf.
[2] SAS Institute, Inc. "How can casinos increase the efficiency and effectiveness of sustainability efforts?" https://www.sas.com/content/dam/SAS/en_us/doc/solutionbrief/gaming-casinos-increase-efficiency-effectiveness-sustainability-104655.pdf
[3] Institute for Market Transformation "Energy Benchmarking and Transparency Benefits." 2015. http://www.imt.org/uploads/resources/files/IMTBenefitsofBenchmarking_Online_June2015.pdf
[4] Institute for Market Transformation "The Benefits of Benchmarking Building Performance." http://www.imt.org/uploads/resources/files/PCC_Benefits_of_Benchmarking.pdf