

ENERGY BENCHMARKING AND TRANSPARENCY BENEFITS

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WHAT IS ENERGY BENCHMARKING?

Energy benchmarking is the process of measuring a building's energy use over time. This allows owners and occupants to understand their building's energy performance relative to similar buildings and helps identify opportunities to cut energy waste.

WHY IS IT IMPORTANT?

The building sector is the single largest user of energy in the United States, accounting for roughly 40 percent of total energy consumption. Each year, we spend \$450 billion on energy for our buildings. What's more, **the poorest performing buildings use 3 to 7 times the energy of the highest performing buildings**—for the exact same building use.

Energy benchmarking and transparency allows building owners, governments, and the public to better understand how their buildings use energy. With this knowledge, they can make smarter and more cost-effective improvements.

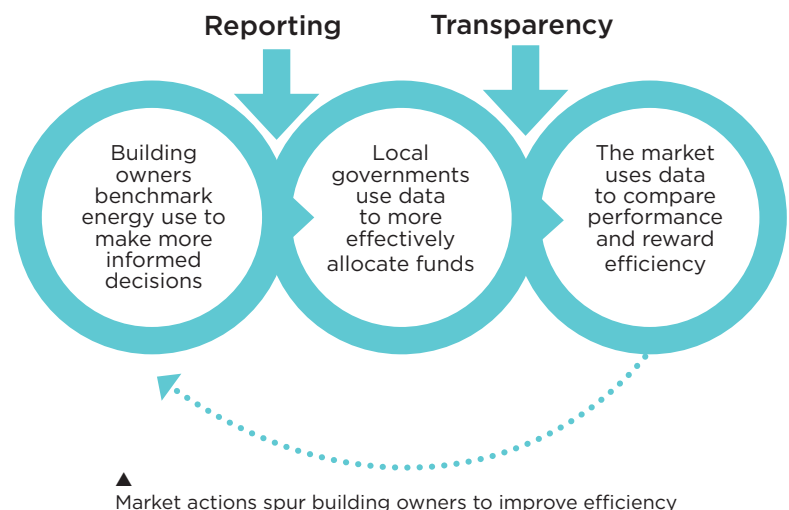
HOW DOES ENERGY BENCHMARKING WORK?

Benchmarking and sharing building energy use through transparency programs and policies is an easy way to examine energy use and make smarter, more cost-effective operational and capital investment decisions. At their core, benchmarking and transparency programs comprise three components:

- **Benchmarking.** You can't manage what you don't measure. Collecting building energy use data sets a performance baseline that allows building owners to know how their buildings compare to similar buildings, the magnitude of potential energy savings, and whether energy efficiency improvements are having a positive effect.
- **Reporting.** Sharing benchmarking data with a city, state, or province allows policymakers to analyze whether programs are achieving their intended results, more effectively utilize resources, and gain a better understanding of a region's building stock for infrastructure planning.
- **Transparency.** Sharing benchmarking data on a large scale opens up a conversation among all stakeholders and allows everyone to work toward common energy goals by recognizing and rewarding efficiency.

HOW BENCHMARKING TRANSFORMS THE MARKET

Collecting, reporting, and sharing benchmarking data on a regular basis allows the market and government agencies to make smarter investment decisions, reward efficiency, and drive widespread, continuous improvement.



CAPITALIZING ON ENERGY EFFICIENCY THROUGH ENERGY BENCHMARKING

Benchmarking building energy use offers consumers, building owners, government agencies, and utilities a multitude of benefits.

MARKET COMPETITION AND CONSUMER CHOICE

Data gleaned from benchmarking allows building owners to remain competitive, and requiring benchmarking across a region's building stock in turn makes states and cities more economically competitive.

- › Energy-efficient properties have [occupancy levels](#) up to 10% higher than less-efficient properties, [rental premiums](#) over 10% higher than less-efficient properties, and [sale prices](#) up to 25% higher than less-efficient properties.
- › [Evidence indicates](#) that benchmarking and transparency laws reduce utility expenditures by about 3%.
- › Global organizations that track and analyze their energy use have reported [taking three times more energy efficiency actions](#) than those that do not regularly track energy use. Benchmarking allows North American buildings to remain competitive.

ENERGY AND COST SAVINGS Energy waste in buildings drains millions of dollars from the economy every year. Benchmarking is highly correlated with energy efficiency improvements and savings.

- › Buildings across the U.S. that benchmarked over a 3-year time span reduced energy consumption by an average of 2.4% 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% on average, adjusting for weather, over that 3-year period.
- › Of customers [that participated](#) in utility benchmarking programs, more than half agreed that benchmarking leads to the implementation of more comprehensive energy efficiency measures.
- › More than 70% of [facility managers surveyed](#) use benchmarking information to guide energy efficiency upgrade plans, and 67% use it to help justify energy efficiency improvements.

JOB CREATION AND ECONOMIC GROWTH

Giving the market better information about building performance unlocks demand for energy-efficient products and skilled workers such as engineers, energy auditors, architects, facility managers, and construction workers—quality jobs that can't be outsourced.

- › [Out of Philadelphia's 7,000 commercial buildings](#), 77% need energy upgrades. Retrofitting them would generate more than \$600 million in local spending and support 23,000 jobs. Benchmarking was identified as a solution for helping buildings most in need of improvement.
- › Local businesses in markets with existing benchmarking and transparency laws reported significant new demand for energy efficiency services and are hiring new employees after the adoption of a benchmarking ordinance, with this demand driven by increased awareness of building energy efficiency opportunities.

SMARTER GOVERNMENTS AND UTILITIES

Buildings are one of a city's most important assets. Benchmarking data provides unparalleled insight into how buildings perform, enabling more informed investment decisions.

- › In New York City, an [analysis of benchmarking data](#) from more than 13,000 buildings showed energy use variations by a factor of 3 to 7 among properties with similar uses, exposing potential for sector-specific improvement and savings opportunities.
- › In San Francisco, account representatives of Pacific Gas and Electric Company [use benchmarking data](#) to streamline outreach efforts and reach out to building owners about specific efficiency programs.
- › In Massachusetts, the Low-income Energy Affordability Network, Massachusetts utilities, and WegoWise [used multifamily benchmarking data](#) as a screening tool to target low-performing buildings for improvements. Raising the performance of all buildings to the top quartile could save 1,800 gBtu of gas and electricity per year.