

Benchmarking and Transparency: Frequently Asked Questions

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GENERAL QUESTIONS

Benchmarking has been available to property owners as a voluntary measure for years, and many of the leading owners are already using it. What else can be achieved through requiring benchmarking?

Voluntary benchmarking captures only a fraction of the building stock—typically the leading edge. However, improvements at the low end, where buildings can use three to seven times more energy than the best performers, is where many of the most cost-effective efficiency gains are going to be found; mandatory benchmarking will capture these buildings, too, thereby spurring widespread efficiency improvements. Also, mandatory benchmarking captures a complete data set, which is critical to improving our understanding of how our buildings use energy.

What are the benefits of public transparency of a building’s energy efficiency metrics?

Public disclosure provides the transparency that allows the market to work. Cars have MPG ratings, appliances have tags comparing energy use to similar products, and food products have nutrition labels. Like these examples, public transparency will provide energy efficiency information to the people who need it—not just building owners and managers, but also the utilities that provide funding for improvements, the energy service companies (ESCOs) that are providing energy services, current and prospective tenants, and cities working to effectively design and target efficiency programs, etc.

ECONOMIC QUESTIONS

How would introducing citywide benchmarking of large buildings create benefits for the real estate industry?

The benefits to building owners are potentially large in terms of energy savings once buildings are benchmarked and owners have the necessary information to take action and make improvements. The cost of benchmarking is minimal compared to the energy and cost savings over the decades of a building’s life. Further, the benefits to the city as a whole in terms of jobs, reduced pressure on the electrical grid, and improved air quality are potentially huge.

How will low-performing buildings be affected if their energy efficiency data is shared publically?

Energy efficiency data will join other available data, such as tax evaluation and operating statements, as yet another indicator of potential performance. Also, buildings with poor efficiency metrics aren’t stuck with them. They can typically improve their metrics quickly and inexpensively through no- and low-cost improvements such as more tailored

operations and very cost-effective upgrades with short payback periods, such as more efficient lighting.

How would a benchmarking ordinance affect older or more historic buildings?

The benchmarking data collected in New York City found that older buildings, on the whole, actually perform *better* than newer buildings on energy use intensity and benchmarking scores. More analysis is necessary to determine exactly why this is, but some early hypotheses include a higher thermal mass with less window glazing, as windows are a significant source of heat loss. Granted, this may not be the case in each city, but the data to date at least show that older and more historic buildings are not disproportionately disadvantaged through transparency.

Do smaller buildings owners have to take action under the proposed benchmarking and transparency ordinance?

No. The square footage threshold for covered buildings is set to exclude small building owners.

Much of the energy use in large buildings is controlled not by the owners, but by the tenants. What can building owners do to encourage their tenants to be more energy efficient?

One reason that tenants are not discouraged from using excessive amounts of energy is that they often don't pay for exactly what they use. The owner can ensure that tenants are incentivized to reduce their consumption by sub-metering them and then billing them according to consumption. Since sub-metering an entire building can take time, a building owner or manager can work with their tenants to help them reduce their consumption in the interim by sharing information about best practices.

TECHNICAL QUESTIONS

Many types of buildings will have to comply with the ordinance, but you can only get a Portfolio Manager score for some building types. How does Portfolio Manager create metrics for buildings types where ENERGY STAR scores are unavailable?

Any building can use the Portfolio Manager tool to benchmark energy use. While some building types cannot receive a 1-to-100 ENERGY STAR score using the tool, every building can get an Energy Use Intensity (or EUI) benchmark. Energy Use Intensity is the amount of energy used per square foot. In addition, EPA Portfolio Manager has some key benefits that make it the ideal method of complying with a benchmarking ordinance. First, it is free and easy to use. Second, it is already used by many building owners, so it is recognized in the marketplace. And third, Portfolio Manager has ongoing support from the EPA for upgrades and expansion. This includes expansion to include additional types of buildings. Scores for multifamily buildings were recently added,

and new building types are under development. With Portfolio Manager, even if a building can't receive a 1-to-100 score, it still serves as an excellent tool for managing reporting to the city.

Many new commercial buildings house high-density occupancies, such as trading floors, which have extensive data systems. How does Portfolio Manager account for these particular uses?

The EPA Portfolio Manager tool normalizes for hours of use and density of occupancy. Technical information is available that goes into detail on how Portfolio Manager calculates benchmarking scores.

On what dataset is Portfolio Manager based?

Portfolio Manager uses the Commercial Buildings Energy Consumption Survey (CBECS) dataset, which remains the best and most complete dataset available of building energy use. Also, overall energy efficiency of the entire building stock in the country changes very slowly, which means this data set remains reasonably accurate over the years. EPA recognizes the importance of keeping the comparison data up to date and updates its dataset every four years. Portfolio Manager's benchmarking scores will then be based on this new dataset.

To discuss these frequently asked questions in more detail, to add to this list, or to access additional City Energy Project resources related to building energy use benchmarking policies, contact [Katie Weeks](#), CEP Director of Communications, and [Kimi Narita](#), CEP Deputy Director.

ABOUT THE CITY ENERGY PROJECT

The City Energy Project (CEP) is a groundbreaking national initiative to improve the energy efficiency of existing buildings in ten major American cities. The partnership between the CEP and the participating cities will support bold solutions that can be replicated by other municipalities nationwide and around the world to advance economic development and reduce pollution. The CEP is a joint project of the [Natural Resources Defense Council](#) and the [Institute for Market Transformation](#).

For more information about the City Energy Project, visit us at www.cityenergyproject.org.

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