SIMPLE STRATEGIES TO MAXIMIZE THE VALUE OF COMMERCIAL ENERGY BENCHMARKING

Ask any building engineer, and they'll recognize the common energy efficiency adage "you can't manage what you don't measure." But the concept of tracking building operations—and the associated costs—to identify opportunities for improvement is familiar across the entire commercial real estate (CRE) community. The ultimate goal of benchmarking is improved energy performance, which drives direct value for commercial property owners, managers, and tenants.

Energy use is the single largest operating expense in commercial office buildings, representing approximately one-third of typical operating budgets. Benchmarking makes it possible to attribute increases in a property's net operating income (NOI) to reductions in utility expenses. ENERGY STAR calculates that a 10 percent decrease in energy use could lead to a 1.5 percent increase in net operating income[1]. This increases the asset value of the property and can give it an edge over the market competition. Building owners and managers can use this guide to assemble a team and establish the necessary energy management practices to leverage benchmarking as a tool to identify and act on efficiency opportunities.

Why benchmark?

Energy benchmarking through the Department of Energy's ENERGY STAR Portfolio Manager® allows building owners to track their whole-building energy usage on a monthly and an annual basis. But more importantly, it allows owners to compare the performance of a single building against that of their entire portfolio or similar buildings in their region.

Commercial buildings are responsible for 20 percent of all building energy use, meaning they are among the largest potential beneficiaries for effective energy benchmarking. ENERGY STAR estimates that that office buildings waste up to one third of the energy they consume. The energy savings potential from benchmarking is enormous—and it extends to buildings across the spectrum of asset types and location. Although large, Class A offices typically have a dedicated engineer to monitor usage and identify savings opportunities, Class B and C buildings can often capture deep savings and demonstrate dramatic improvement in their performance over a short period. Buildings in smaller markets, beyond urban centers, can benefit from

[1] "Commercial Real Estate: An Overview of Energy Use and Energy Efficiency Opportunities." ENERGY STAR. https://www.energystar.gov/sites/default/files/buildings/tools/CommercialRealEstate.pdf

benchmarking as well. Light industrial buildings and warehouses are also eligible to use Portfolio Manager to track industry-specific Energy Process Indicators (EPIs).

Less tangible, non-financial, benefits of efficiency include the ability to attract and retain high quality tenants, improved tenant comfort, and higher occupancy rates. Energy benchmarking is keystone of any strong sustainability plan and can be an effective tool for communicating ongoing improvements to tenants or justifying the return on investment to ownership. Tenants see benchmarking as an indicator of excellent building management and it can help to differentiate a property from its peers.

Why go beyond basic energy tracking?

Cities in the Northwest are leading the nation in implementing building benchmarking and disclosure policies. In April of 2017, Portland's energy performance reporting policy will require commercial buildings over 20,000 square feet to benchmark their energy use. Commercial buildings in Seattle have been required to disclose their energy performance since 2011, and the data for buildings larger than 20,000 square feet will be made publicly available in early 2017. Energy benchmarking and disclosure policies are gaining traction in cities and states throughout the country.

By tracking energy use through Portfolio Manager, an owner is armed with a wealth of data to establish a usage baseline and a comparison to the broader commercial market. But it is difficult to drive significant improvement in building performance through energy tracking alone. A relatively small investment of additional time and resources to pursue deeper energy analysis of benchmarking data can reap huge rewards of energy and dollar savings for a property. Owners should consider assembling a team to identify actionable insights from energy data and to implement efficiency strategies that ultimately drive value for the building.

Commercial real estate is host to a complex web of stakeholders, each of which plays a different role in collecting benchmarking data, conducting data analysis, and implementing efficiency projects. Property managers are typically best positioned to jumpstart the benchmarking process by identifying building energy meters and drawing on current information regarding property features, tenant spaces, and occupancy. Managers can then coordinate with building ownership to request meter data from their utility.

Once this data is entered into Portfolio Manager, building engineers or third-party energy service providers can analyze more granular interval data to detect anomalies in energy usage or load among various building systems. Oftentimes, there are low- and no-cost adjustments to building operations and maintenance (O&M) practices that can that can yield large energy savings over time. Building Operator Certification gives building engineers and maintenance personnel the hands-on skills to implement O&M best practices that improve performance. Smaller buildings that do not have dedicated engineers, can still work with third-party providers to obtain comprehensive energy data analysis, receive recommendations for whole-building efficiency improvements, and monitor changes in usage over time.

Property managers pick up where engineers leave off by coordinating among various parties to drive improvements in performance. They play a key role in communicating the benefits of efficiency to existing tenants and timing larger projects to coincide with tenant turnover. Whole-building energy benchmarking can make it difficult to isolate usage trends among individual tenants. Tenant spaces account for one-third to one-half of commercial building's end uses, and small improvements in tenant spaces or tenant energy practices can have a dramatic impact on reducing total building energy consumption. Property managers can lead in educating and engaging tenants about strategies to reduce their energy usage from plug loads, to heating, ventilation, and air conditioning (HVAC), and lighting.

How to get the most value out of your energy benchmarking

Follow these steps to ensure you are maximizing the value of your energy benchmarking data by improving your commercial building performance.

1. **Leverage resources from the City of Portland and the City of Seattle** to determine whether your buildings are subject to upcoming municipal benchmarking requirements.
   - Use this Energy Reporting How-To Guide to take the necessary steps to comply with City of Portland's Energy Performance Reporting Policy.
   - Use this How-To Guide from the City of Seattle to benchmark your buildings.
2. **Begin benchmarking** by creating a Portfolio Manager account and entering your energy meter usage data.
   - Work with your utility to obtain whole-building energy data. You will need a full year of energy data.
3. **Re-examine property lease arrangements** to understand how the lease structure will affect who pays and who benefits from a specific efficiency project.
   - Work with your property management staff to develop a strategy to communicate the financial benefits and/or non-financial benefits (tenant comfort, wellness, and productivity) of efficiency.
4. **Meet with your building engineer or building operator** to set energy management priorities.
   - Identify the types of analysis you will need to conduct in order to reduce your property's energy consumption and meet your energy management goals.
   - Explore tools to drive even deeper energy insights across your portfolio, such as Energy Management Information Systems (EMIS).
5. **Explore basic and advanced energy analysis methods to identify efficiency opportunities.**
   - Carry out load profiling and systems analysis.
   - Carry out a building audit and building retro-commissioning.
6. **Work with your local utility** to find programs to help you implement efficiency projects and incentive dollars to improve project returns.
   - Discuss low- and no-cost strategies to implement O&M best practices.
   - Explore options for efficiency consulting, project incentives, and financing support.