

# OFFICE PROPERTIES

## Quarterly

### Sustainability

## How to move beyond benchmarking your building

To know where you are going, you must first realize where you have been. The wisdom in this adage has spurred cities across the country to initiate energy benchmarking legislation. Energy benchmarking – the process of tracking the energy use of a building, analyzing the data and comparing the results to buildings of similar type, size and geographic location – represents the first step to understanding and reducing energy consumption. This is evidenced by the 2 to 14 percent in energy savings achieved by cities with benchmarking ordinances.

With the passing of Denver's benchmarking ordinance in 2017, and similar ordinances implemented by other Colorado cities, Colorado continues to place emphasis on encouraging increased energy efficiency and reduced carbon emissions. Beginning last June, Denver buildings over 50,000 square feet are required to annually assess and report their energy performance. In June, all buildings greater than 25,000 sf will have to follow suit.

• **What are the next steps?** If you have benchmarked your office building and received your score, you have gleaned valuable data to help prioritize your sustainability objectives. Whether you choose to focus on energy efficiency, water consumption reduction or take a holistic approach to improved building performance, tailored options exist that can help you move toward your goals. And the results can be considerable.

For example, Energy Star certification can lead to direct benefits of 35 percent reduction in both energy consumption and greenhouse gas emissions, while also helping raise rental and occupancy rates compared to noncertified office facili-



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ties. In addition, studies by Harvard University show that green buildings have a measurable impact on occupants. In the COGfx Study, researchers found that cognitive function test scores doubled in simulated green building environments with enhanced ventilation. Employees in green-certified buildings also had 30 percent fewer sick building symptoms. In the recent HEALTHfx Study, Harvard determined that green buildings, through lower emissions, improve the health and well-being of society in general with fewer respiratory ailments, asthma symptoms, hospital visits and even premature deaths.

So, what are the steps you need to take to get to your sustainability objectives?

• **Further assess capital improvement opportunities.** For buildings that initially score poorly (in the lower half of benchmarking scores), but whose owners are interested in committing to sustainability, an investment will be required to complete the needed improvements. Integrating sustainability objectives into the capital planning process can help make these initiatives a priority. How this translates into action depends on you and your goals.

Performing an energy study or audit can be a good step toward identifying specific energy conservation measures. ECMs are projects that can result in energy savings with their own upfront costs and simple paybacks. Additionally, an

energy study will help you budget for future capital expenses – related to energy efficiency – that align with your sustainability goals and required payback period.

• **Pursue low-cost initiatives and quick payback options.** For buildings that are performing better than most (in the upper half of benchmarking scores), it may be advantageous to pursue low-cost initiatives with quick payback options and then re-evaluate. Begin by considering where sustainability improvements can be made most easily. The answer could be as simple as gaining a better understanding of the resources your building consumes.

Behavioral change initiatives, such as implementation of a switch-off campaign, could have a significant impact, or you may choose to bring in outside experts to aid in identification of improvement opportunities.

Many utility companies, such as Xcel Energy, provide rebate and incentive programs for retro-commissioning and building optimization studies. These studies focus on identifying quick payback energy-savings opportunities and have the potential to help save as much as 20 percent on energy bills.

• **Certification is within reach.** Congratulations are in order if your building is in the top quartile of benchmarking scores. Buildings that score at least a 75 on the Energy Star Portfolio Manager tool earn a certification plaque and are positioned to achieve further certification under a green building rating system such as the LEED Green Building Program. For example, the LEED for Building Operations and Maintenance: Existing Buildings certification process awards points for buildings scoring higher than 75. A building with an Energy Star

score of 85 already qualifies for 12 points under LEED O+M: Existing Buildings – 30 percent of the way toward LEED certification.

Arc is another green building certification process that recognizes high benchmarking scores. A digital platform, Arc uses the information from your building's performance and rates it against your building's peers in the categories of energy, water, waste, transportation and the human experience. It works as a complement to other green building ratings systems and provides a more comprehensive account of sustainability performance. Arc is continually updated for compatibility to other rating systems, such as the WELL Building Standard, that take advantage of Arc's inclusion of the human experience rating.

For those looking beyond energy savings, Arc provides insight to position your sustainability initiatives around the health and wellness of your building's inhabitants or whichever alternative certification system reflects your overall sustainability goals.

• **Bringing it all together.** Building benchmarking ordinances present an important opportunity for increased energy efficiency and are just one example of Colorado's strides in setting sustainability as a priority for its buildings. As building owners, it should be exciting to know that improving the performance of buildings can have a significant and lasting effect on energy consumption and greenhouse gas emissions. Your role in helping to achieve sustainability goals is pivotal and the actions and options you take beyond benchmarking make a difference. For as it has been shown, once you realize where you stand, it is that much easier to get where you want to go. ▲