

Responsible property investing:

Efficient operations - Another path to sustainable real estate



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New construction is a vital part of a balanced real estate strategy, but in many cases there are equally compelling opportunities in improving the operations and management of existing assets. If your goals include creating value, reducing risks and costs, and providing healthy and productive places to live and work, the greatest returns can come through improved building operations.

Newly constructed sustainable and high performance buildings represent only a fraction of the total stock of commercial buildings in the world. To fully grapple with issues such as environmental impact and social responsibility, the broader universe of existing commercial properties must obviously be brought into focus. The strategy will be most effective by examining and enhancing how these buildings are run and operated on a daily basis and by making those operations as efficient as possible.

Old or new: Every building can be sustainable

More than 75% of the existing commercial buildings will continue to operate as is over the next 15 years.¹ Thus, tackling sustainability through improved operational efficiency rather than focusing solely on newly constructed properties is vital. Retrofitting existing buildings often represents a more reasonable and cost-effective alternative to building new properties.²

Operational efficiency can be crucially important; a study from the US Department of Energy puts the commercial property sector's proportion of total US energy consumption at just around 20%, with office, retail, and educational space making up about half of that total.³ Additionally, we know that some older existing structures are actually more efficient than newer buildings. Studies conducted by the cities of Boston, New York, and Seattle demonstrated that commercial buildings constructed prior to the 1950s use less energy per square foot than buildings from any other decade of construction.⁴ Finally, research produced by the EPA's ENERGY STAR program shows that building age is not a significant driver of overall energy efficiency, implying that "old" is not automatically worse when it comes to energy efficiency and sustainability.⁵

It seems clear that running efficient building operations, sometimes with no-cost and low-cost improvements, can be the quickest way to implement sustainability into your properties; operations can provide this foundation no matter how old the building. What is even more surprising is that good operational strategies are extremely cost-effective, sometimes free!

Sustainability through technical operational changes

Small operational changes can often go a long way to boosting a property's sustainability. Many changes can be done at low or no cost, with significant improvements to both operational efficiency and a property's profitability. Here are a few basic examples of small-cost/big-impact strategies for the major categories of energy, water, and waste.



One DTC, Greenwood Village, CO
LEED® Rating: Gold

Energy

- **2° Fahrenheit temperature adjustment:** Increasing the temperature set point by 1° Fahrenheit during the cooling season and decreasing it by 1° Fahrenheit during the heating season can achieve measurable reductions in energy consumption. This no-cost option could provide simple payback immediately with minimal impact to tenant comfort.
- **Restrict lighting in vacant spaces or use occupancy sensors:** By turning on the lighting in vacant spaces

no more than an hour before showing the space to a prospective tenant and shutting off the lighting when leaving, this no-cost option could provide immediate benefit and reduce energy consumption even in buildings with low vacancy rates. Occupancy sensors can ensure that even occupied spaces are only lit when there is a person in the room, further reducing energy consumption. In occupied space, vending machines could be hooked up to occupancy sensors to limit lighting and compressor loads during periods of inactivity with the potential to cut vending machine energy consumption by a third.

- **Incorporate photosensor controls in addition to lighting timers:** Timers are an effective method of controlling a building's lighting to coincide with hours of operation or occupancy, but including photosensors can add even more efficiency and energy savings by overriding the timer system when natural lighting is sufficient.
- **Preventative maintenance for HVAC systems and building envelope:** Most systems run at peak efficiency when they are clean and in good repair. Rather than waiting for something to break, a robust preventative maintenance program can maximize the efficiency of your HVAC system. And something as simple as replacing worn door seals can cost around \$100 per door but lead to thousands of dollars in annual savings by reducing the load on your HVAC system.
- **Replace metal halide or sodium vapor lamps with compact fluorescents or LED:** As interior and exterior lighting is replaced, installing efficient compact fluorescent or LED bulbs will help reduce energy consumption since these types require less power to run. Furthermore, since these lighting technologies last longer, the need to replace bulbs will be reduced, further cutting maintenance costs.

Water

- **Install VFD (variable frequency drive) on pumps for water features:** For properties with water features, a VFD can reduce the energy consumption of a typical water pump by around 40% by reducing pump operations during periods of low water demand.
- **Consider native or drought-tolerant plants in landscaping:** Watering for outdoor landscaping can be a significant commitment in dry climates. Native species are adapted to the climate and can typically survive without additional watering.

> **Enlist building security as your eyes and ears:** If the property has on-site security, asking them to look for water leaks during their rounds can help quickly identify issues. This can work for identifying HVAC or lighting issues as well.

Waste

> **Implement a recycling program:** Establishing a property-wide recycling program can help reduce waste management costs by 10% to 20%. This will also reduce the amount of material going to landfills.

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While operations include technical and quantifiable aspects such as power usage, water usage, and waste management, there is also a more qualitative aspect that focuses on governance and the management side of operations. This gets to the heart of the issue: Operations is really about combining people, discipline, strong processes, and daily best practices to achieve financial and environmental improvements. Even a brand new development requires qualified people (e.g., engineers, property managers, and technical professionals) to achieve the highest performance levels. New technologies, sophisticated solar systems, or the latest solid-state lighting installation can only deliver on their promises with a trained, dedicated team of professionals behind the scenes. People make buildings perform.

The role of management and governance

Sustainability and efficiency gains can be most easily seen through bills: the water bills, the electricity bills, the waste management bills, etc. However, sustainability takes on an even more important dimension when considering improved management and governance.

As described earlier, good operations are a function of people, policy, and disciplined implementation. A strong governance platform enables an organization to monitor and ensure that the intended financial and environmental outcomes consistently materialize. This translates beyond sustainability and green since good governance drives improved operations, which in turn drives better property performance across all aspects of real estate.

The foundation for this sequence is having comprehensive sustainability programs and policies in place to guide day-to-day operating practices. Creating a formalized sustainability program will clarify the goals and responsibilities for owners, property managers, building staff, and tenants. An effective program should prescriptively address such items as objectives, measurements, and timing. In doing so, the property owner can clearly demonstrate what types of considerations they feel are important, for example, environmental, social, and governance (ESG) factors. By establishing program specifics, property owners can then be better positioned to underwrite the skills and capabilities of the property managers needed to operate each property.

One of the first steps in any sustainability program should be to benchmark energy and water consumption and waste management statistics. Benchmarking each property will establish reference points for easier identification of sustainability success or shortcomings by making trends more apparent. The plan should then determine what will be measured, who will measure, and how often measurement should occur. Accountability is the key to success. A set of directions is only as good as the ability and willingness to follow them. All parties, from tenants and maintenance staff to owners and property managers, need to understand the program's objectives. With a well-designed and well-implemented program, all parties are working toward the same goals.

It is important to note that a governance policy should be enforced across properties and portfolios, but the “on the ground” aspects of the policy will and should be different at each property to reflect the uniqueness of each situation. Policies can also delineate key responsibilities by property type, management structure, and market conditions, ensuring flexibility and responsiveness to local market trends.

Managing the program can be made demonstrably easier by incorporating a system to track and monitor usage trends. A system like the Environmental Protection Agency's ENERGY STAR Portfolio Manager® can help in this way. Portfolio Manager is an online tool for measuring and tracking greenhouse gas emissions, energy, water, and waste consumption. The Portfolio Manager tool can be used to benchmark single properties or entire portfolios of real estate. The best part is the system is free.

Sustainability through people and skills

Real estate investing can often narrowly focus on the physical structures of glass and steel, but as noted previously the heart of sustainable real estate is in the people who occupy structures and who make those structures work. It is the result of talented individuals working together within a well-designed program

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that fosters a best-practices mindset in each of the stakeholders. This encompasses a healthy tenant engagement effort as well as establishing good working relationships with and between asset managers, property managers, building engineers, and security staff.

Tenant engagement is crucial to overall success. Tenants will very often be the determining factor of whether your sustainability efforts will succeed or fail, so it is doubly important to make sure they support and participate in your efforts. This means more than just quarterly mailers with tips on saving energy. True tenant engagement will require collaboration, so tenants understand the benefits of the program as well as the operational hurdles that exist. Stressing low- and no-cost approaches to sustainability will be another effective method of tenant engagement. By focusing on the “low hanging fruit,” tenants can be nudged in

the right direction and involved in the sustainability process. Tenant-engagement efforts should emphasize the economic benefits that tenants could realize. By incorporating this message, tenants will see the benefits to their bottom line as well as to the environment.

A key to optimizing the efficiency and sustainability of a property lies in recognizing that every property is unique. For the asset manager, this means that hiring the correct property manager with the appropriate skills should be a priority. Some property managers' skills lie with suburban multifamily, others with downtown office. Likewise, the day-to-day operations differ greatly between property types. A sustainability strategy that works for a retail property rooftop-package HVAC unit may not work for a downtown office tower's heating plant. Identifying property managers and building engineers who can meet the specific needs of a property will go a long way towards successful implementation and achieving financial returns.

Put simply, it is a team effort. To run any property at optimal efficiency, the asset manager, the property manager, the engineering team, janitorial employees, contractors, and even security staff need to work in concert. There cannot be a chasm of misunderstanding between the property manager and the building engineer or between the asset manager and the property manager, etc. Regular and open communications among all of these groups will help ensure that operational efficiency and sustainability are everyone's primary goals.

Better operated buildings are simply better investments

The investment returns of pursuing sustainability through efficient operations go well beyond lower operational costs; though for real estate investors this is a powerful argument. Sustainable properties have shown evidence not only of garnering rental premiums but also of faster absorption and lower cap rates.⁶ Market demand for sustainable properties means that efforts to attract and retain tenants are enhanced by following sustainability strategies. A series of Harvard and SUNY Upstate Medical University studies have shown that individuals working in green buildings scored 26.4% higher in terms of cognitive function as compared to workers in non-green buildings.⁷ LEED

or ENERGY STAR certified buildings have been found to command a 2.2% rental premium over similar properties without this type of green certification.⁸ Moreover, there was a sales premium identified for buildings with a LEED or ENERGY STAR certification over uncertified equivalents averaging about 10.1%.⁸ A 2016 study of ENERGY STAR certified office properties echoes these findings and estimates that for every US \$1 in source energy savings there is an increase of \$20.73 in market value.⁹

For asset managers, demonstrated operational expertise can also broaden the field of investment. With enhanced operational efficiency, a B- property could be turned into a B+ property, which can translate into increased profitability. Besides the potential for increased profitability in sustainable properties, asset managers who pursue efficient operations are also perceived in a more positive light by the marketplace. In addition a manager with operational expertise can be seen as having the rigor to efficiently manage other aspects of the real estate process, leading to an enhanced reputation and competitive standing within the industry.

Real estate asset managers need look no further than requests for proposals (RFPs) to see how attitudes toward sustainable real estate have changed over the last several years. In the past, consultant and client RFPs asked “what is your sustainability plan?” They now ask “how is your sustainability plan making a difference?” It is more often assumed that sustainability is on the industry’s radar.

Other benefits

The property owner and the property managers are not the only ones who benefit from sustainability initiatives. Harvard University and SUNY Upstate Medical University studies have shown that individuals working in green buildings reported 30% fewer illness symptoms than those in non-green buildings.⁷ Furthermore, green buildings contribute to increased worker satisfaction. More than 80% of workers in LEED-certified properties noted that the improved indoor air quality and increased natural lighting contributed to their increased comfort and health.¹⁰ Better-run, more



Capital Plaza, Washington D.C.
LEED® Rating: Platinum

efficient buildings have healthier, happier occupants. This is exactly what Principal Real Estate Investors found during our most recent round of tenant surveys. Tenants of our LEED-certified buildings demonstrated higher levels of satisfaction than tenants of non-LEED-certified buildings. We feel that this provides further justification to pursuing sustainable real estate through efficient operations. To that end, we have recently strengthened and expanded our own sustainability program called the Pillars of Responsible Property Investing (PRPI). Based on the United Nations Principals of Responsible Investment, the PRPI initiative places a primary focus on operational excellence and acts as an expanded fiduciary framework to better serve the needs of our clients, investors, tenants, and communities.

Conclusion

Sustainability continues to gain traction around the world, but the vast majority of the world's commercial properties would still benefit from improvements in day-to-day operations. Because of this, sustainable real estate investing needs to encompass much more than new technology, industry certifications, and marquee new-construction projects. To make a meaningful impact on environmental—and financial—performance, sustainability efforts will increasingly need to focus on existing properties, the people behind the scenes who make them run better, and the daily operations and best practices that make a difference.



Piedmont Town Center, Charlotte, NC
LEED® Rating: Gold

¹ Source: <https://hbr.org/2016/01/old-buildings-are-u-s-cities-biggest-sustainability-challenge>

² Source: https://perkinswill.com/sites/default/files/ID_4_PWRJ_0801_03_Sustainable_and_Energy_Efficient_Commercial_Retrofit.pdf

³ Source: <https://www.eia.gov/totalenergy/data/monthly/archive/00351804.pdf>

⁴ Source: https://www.cityofboston.gov/images_documents/BERDO_rprt_webfinal_tcm3-52025.pdf

⁵ Source: <https://portfoliomanager.zendesk.com/hc/en-us/articles/211027438-Does-the-ENERGY-STAR-score-account-for-building-age->

⁶ Source: https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service_content/attachments/Appraisals_LenderGuide_FINAL.pdf

⁷ Source: <https://www.sciencedirect.com/science/article/pii/S0360132316304723>

⁸ Source: <https://onlinelibrary.wiley.com/doi/abs/10.1111/1540-6229.12223>

⁹ Source: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1009.9628&rep=rep1&type=pdf>

¹⁰ Source: <https://www.usgbc.org/articles/employees-are-happier-healthier-and-more-productive-lead-green-buildings>

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