

Navigating CRE's “New Normal” Amid COVID-19

*Three Ways Optimizing Operations
Generates More Capital From Your Portfolio*



The COVID-19 pandemic and resulting economic downturn have transformed the commercial real estate (CRE) industry and investment landscape. After years of predictable performance at reasonably low risk, real estate investments now face the threat of drastically reduced operating income, health and safety liabilities and tenant volatility.

Beyond this, reopening requirements have created new responsibilities – and costs – for building owners and are expected to change the way commercial properties behave well into the future.

According to Green Street Advisors, the unlevered enterprise value of real estate assets fell more than 25 percent across most sectors, with an unprecedented **37 percent drop for lodging assets** as of April 3. Compounding this is the fact that owners will continue to flood the market with new properties as they look to offload underperforming assets. Additionally, CRE can expect deeper cuts to profitability as government funding and support of tenants dries up, leaving owners to carry the burden of deferred payments and contract renegotiations. Simultaneously, real estate portfolio managers and financial decision makers are prioritizing new safety measures as reopening efforts get underway, paying a premium for everything from equipment upgrades to cleaning regimens that ensure tenants can safely return to their buildings. As the pandemic breeds new costs and complexities at every level of CRE, finding opportunities to control and maintain portfolio-wide value has never been more vital.

ABOUT THIS EBOOK

This eBook explores three ways to generate more capital from your real estate portfolio in CRE's "new normal." Whether you are looking to address tenancy, buy or sell properties, increase margins or simply cut overhead costs, investing in resiliency strategies can drive tens of thousands in guaranteed profits, protecting your investments against economic uncertainty while also:

- **Future proofing your investments**
- **Controlling and cutting costs**
- **Driving tangible asset value across your portfolio**

Future-Proof Your Investments

With little more than a moment's notice, CRE was faced with business closures and successive social distancing guidelines prompting a "new normal" that is directly impacting how properties are managed and operated, what costs they incur, and thus their collective value. To ensure CRE's viability as a stable and profitable investment, it will need to modernize.

As this pandemic proved, CRE executives must act quickly in the face of market disruption. As with the industries that came before it, digital transformation of CRE will require a mix of updated equipment, smarter control algorithms and, of course, data. But CRE lacks the real-time, data-backed insight needed to nimbly shift operations and stem losses in times of disruption. At the heart of the issue are legacy buildings, many constructed before the end of

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the Cold War, with minimal updates to their HVAC and other systems since. In analyzing 100MM sq. ft. of building data, Carbon Lighthouse has found that 15

percent of buildings don't even have a building management system (BMS) to provide visibility into usage and efficiency opportunities. In buildings that have a BMS in place, fewer than 50 percent have the tools to access or view

usage data remotely or in real time – most are still relying on once-a-month meter reads or utility data to inform efficiency strategies. But as CRE experiences long-term vacancies for the first time in

decades, the COVID crisis presents an unexpected opportunity to modernize. Step one in future-proofing these assets is investment into technology that data-backs operations, facilitating accurate, real-time reporting of efficiency opportunities and achieved profits at the portfolio level. In a recessionary environment, data-backed technology is key to showing the real dollar value of efficiency investments, as well as the overall health of your assets.

With access to deeper data sets, portfolio managers and building owners can also act more quickly to address safety concerns and conserve cash. For example, social distancing measures are likely to impact energy use as corporate tenants stagger employee access to their offices. Technologies with the right data sets can help to recognize and act on load shifts, creating even deeper savings on utilities. Perhaps most importantly, data insights can help manage costs as building owners work to alleviate tenant safety concerns. Many building

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owners are exploring changes to their HVAC systems as they work to curb virus spread, changing the balance of inside and outside air flow, as well as replacing filters and adding UV technology. While the hard costs of these upgrades are justified in the face of tenant safety, these should also be deployed with full knowledge of how these changes can impact building operations or create new energy costs.

This is why it is crucial to balance advanced software with physical equipment updates when making technology investments. In the case of HVAC upgrades, AI and machine learning capabilities can help identify inter-system dependencies and present efficiency opportunities, allowing CRE to recoup some of their investments via newfound energy savings.

While challenging in the moment, CRE's "new normal" also offers an opportunity to reset for the future.

Data technologies will enable smarter building management strategies, while ultimately making buildings more resilient and agile for future disruptions. With data at its core, CRE modernization will not only help owners and investors through this time, but will set them up for portfolio-wide financial and operational success, as well as greatly reduce CRE's carbon emissions.

Controlling and Cutting Costs with Energy Efficiency

As digital transformation of CRE takes hold, owners and investors can begin to reap the benefits of data insights in curbing operating costs. Energy efficiency presents one of the fastest, most straight-forward opportunities for cost savings across real estate portfolios.

That's because utilities are one of the top two **highest, yet most controllable costs** for building owners. In the wake of COVID-19, where usage trends are highly unpredictable and evolving, understanding energy expenditures and optimizing for efficiency is, and will continue to be, vital to capturing lost capital.

The average cost of utilities in commercial buildings is \$2.10 per square foot, and expected to rise. Properties in some of the real estate markets hardest hit by COVID-19, including California, New York City and Hawaii,

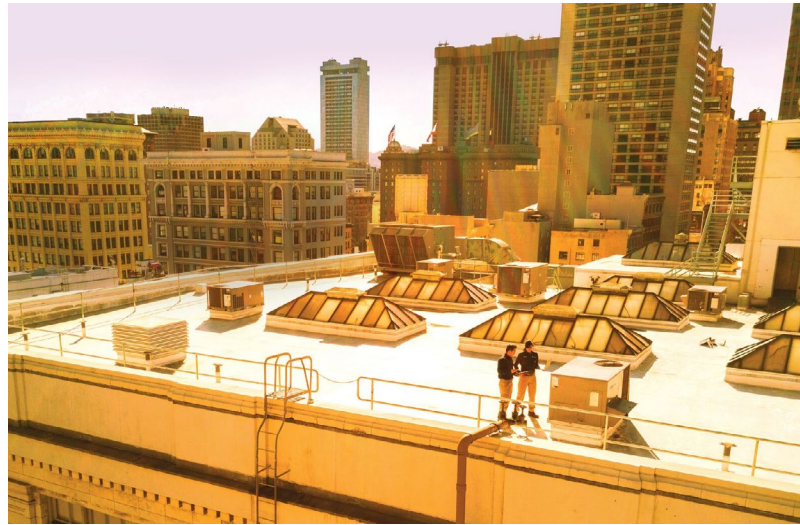
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also carry the highest commercial utility rates. The costs of energy can reach upwards of \$.20 - \$.30/kWh in these regions, while investments in energy efficiency cost a mere \$.025/kWh in comparison. According to the Office of Energy Efficiency and Renewable Energy, commercial buildings that utilize “green” principals **can realize a 30 percent annual reduction in energy bills**, while those that do not will pay out an accumulated \$50 billion a year in excess energy use.

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Pursuing energy efficiency as a cost-savings strategy should be a business no-brainer. Even before the COVID crisis, capital markets have

required proof-of-efficiency savings as a way to qualify potential environmental, social and governance (ESG) investments, believing that better run buildings with lower operating costs make for more profitable investments. But CRE executives have hesitated in the past for fear of upfront technology costs, tenant disruptions and unproven ROI. New and pressing priorities in service of tenant health have created further cost pressures coming out of this crisis. But it’s because of these new costs that CRE needs to invest in efficiency strategies now more than ever before. Cleaning costs alone can run building owners up to **\$2.50 per square foot**. As costs continue to rise, energy efficiency strategies stand to significantly offset losses, providing predictable and proven returns amid the uncertainty.



While some have predicted that clean energy investments will take a hit in response to COVID-19, CRE may prove the exception. This is because energy efficiency generates savings that directly impact the bottom line. Carbon Lighthouse, for example, does not require any upfront cost or capital expense and our clients see positive cash flow in year one and beyond. Our technology-enabled **Efficiency**

Production quickly assesses financial upside across entire real estate portfolios, from high-performing Class A and well-run hotel assets to lower performing assets, maximizing NOI at every stage

of the asset lifecycle. As CRE professionals contend with their new normal on the front lines of COVID-19 containment, data-driven and efficient operations must become the status quo. Energy efficiency strategies offer low risk and proven financial rewards.

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Think energy efficiency can't generate value in the short-term? Think again.

L&B Realty Advisors, a real estate investment advisor with \$9 billion under management, is saving nearly \$43K annually within one class A office tower in Miami by partnering with Carbon Lighthouse. In just three months, savings were already 132 percent above projections and expected to grow. By making changes to LED lighting, isolating energy zones during after-hours, and providing better controls around existing HVAC equipment, L&B stands to generate \$501K in lifetime savings.

[Read more about L&B's success >](#)

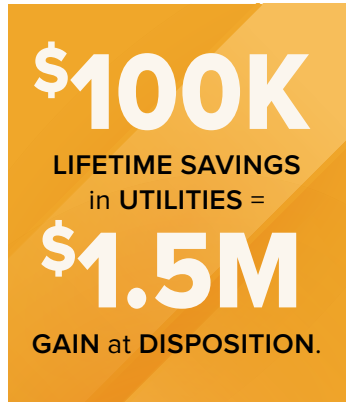
Drive Tangible Asset Value Across Your Portfolio

Commercial property prices have declined an **average of 10 percent** since the end of 2019, signaling a need for some investors and owners to sell weak assets, while others may be looking to capitalize on an unexpected buyer's market. Regardless of objectives, showing tangible proof of an asset's value in today's flooded market will be paramount.

Leading CRE investors such as BlackRock and Goldman Sachs have long required that ESG investments in the CRE space show data proof-of-efficiency returns, knowing that these investments are better equipped to deliver operational excellence and NOI, in addition to positive environmental impacts. Their strategies have paid off, as these **ESG funds show greater resilience** than conventional funds in wake of COVID-19.

The fact is, ESG and financial metrics **are becoming equally important** to CRE investors. The most progressive likely don't differentiate between them at all. But in the context of a sale, energy efficiency, in particular, offers a competitive edge. This is because efficiency strategies that are deeply data-backed and maintained over time can offer guaranteed lifetime savings, which are then capped at disposition, increasing an asset's overall value by millions of dollars.

Too often energy efficiency is deprioritized because it is thought of as having too small an impact on portfolio value. But while utility costs are relatively small when compared to revenue and larger expenses like labor, a \$100K lifetime savings in utilities equates to a \$1.5M gain at disposition, or roughly 250 percent return on investment. Better yet, because the lifetime savings we project is precisely modeled



by Carbon Lighthouse's patented AI software, CLUES® and backstopped by Hartford Steam Boiler, a global leader in equipment insurance and part of Munich Re, we can deliver guaranteed NOI growth and operational excellence at any stage of the asset lifecycle. As a result, we are able to increase building

**GUARANTEED
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per square foot.

value by \$5 to \$10 per square foot. This means an easy exit is always at hand, whether an existing owner chooses to buy out the contract or a new owner assumes Carbon

Lighthouse's guaranteed savings year after year. And if you are a buyer, data-backed proof that a seller has taken energy efficiency measures can offer reassurance that an asset will continue to perform well into the future.

Even if you are not planning to sell, energy efficiency strategies can serve as a key differentiator in this tough economic landscape. Efficient buildings are more market-competitive, offering reduced climate impact as a benefit to investors, tenants and guests alike. These properties are also better prepared to meet more stringent ESG requirements, which are increasingly focused on curbing carbon emissions in order to mitigate risk. With pressure coming from major investors, the market is more inclined to invest in properties that are both financially sound and sustainably minded, while efficiency criteria are becoming integral to due diligence.



When **Ohana Real Estate Investors** partnered with Carbon Lighthouse on one of LA's top hotels, the Montage Beverly Hills, the teams uncovered unexpected inefficiencies in this top-of-the-line property. With unique optimizations identified through tens of thousands of site-specific data points, it was immediately cash-accretive, with significant first-year savings (total energy bill reduced by 8 percent).

When Ohana chose to pursue a disposition, these guaranteed lifetime savings also successfully boosted NOI.

“
Carbon Lighthouse was a key component in our strategy to drive value at the Montage Beverly Hills. Our partnership positioned the hotel well for its recent disposition.”

— James Cole,
Managing Director
OHANA REAL ESTATE INVESTORS

[Read more about Ohana's success >](#)

Strategies for Increasing NOI at Disposition

No CRE sector has been impacted more deeply by the COVID-19 pandemic than hospitality. As mentioned, the lodging industry has experienced a 37 percent decline in unlevered enterprise value from the industry's height in late 2019, amid declines in occupancy and the mounting costs associated with cleaning, sanitizing, and equipment upgrades needed to

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give travelers peace of mind. According to a recent Lodging Industry Investment Council (LIIC) survey, 91 percent of members believe that hotel assets will not return to

2019 cash flow performance levels for at least another year. But hospitality investors and operators can still cut costs and spur positive NOI growth, whether they are planning to sell or maintain properties in 2020.

Even in a recessionary environment, there is healthy interest in hotel investments. According to the survey, 57 percent believe the time is right to submit a Letter of Intent to Purchase a new hotel. Yet, while 64 percent of investors state they are still cautiously underwriting new lodging investments, 74 percent are simultaneously taking a wait-and-see approach. Investors will be more critical in the purchase process post-COVID, requiring hotel owners to ensure their property is as appealing as possible. What that ultimately means for sellers is that they need to find proven ways to improve profitability leading into a sale.

Data-backed energy efficiency strategies can do just this, increasing building value by \$5 to \$10 per square foot and delivering a 250 percent return on investment, in the case of our clients at Carbon Lighthouse. Informed investments in energy efficiency don't need to break the bank, or even require any upfront purchases of new equipment. But these upgrades can have a proven impact on your bottom line, even in the most challenging business conditions.

STRATEGIES FOR IMPROVING NOI of your Hotel Property

If you're planning to sell your hotel property given the current economic climate, modernization and energy efficiency strategies can improve profitability leading into a sale. The following tactics will help streamline operations ahead of a disposition, while increasing NOI:

- **Digitize HVAC Operations:** Minimize the need for in-person engineering while ensuring your lobby, conferencing and ballrooms are comfortable for group events.
- **Right-Size Air Flow:** Regulate the amount of outside air in hotel conferencing and ballrooms to account for occupancy shifts and ensure the healthiest, most productive environment.
- **Optimize Base Building HVAC:** Ensure guest rooms, conferencing and ballroom spaces are conditioned to comfort at the lowest possible cost.



As hotels look to reopen their doors, there is an opportunity to capitalize on low guest volume to tackle deferred projects, conduct otherwise disruptive maintenance, and, most importantly, explore new technologies and strategies. To prepare for more profitable operations post-COVID, consider the following tips.

- **Move to a “shoulder season” sequence.** While these are traditionally designed for lower load situations, they are also likely employable for drastic changes in how common spaces are used.
- **Move away from setting static setpoints and standard hours of operation.** Optimize your sequences and resets for equipment like HVAC systems and lighting to ensure they are adaptive to the current property load and match altered operating hours due to COVID-19.
- **Assess mixed-use opportunities for your least energy efficient spaces.** In the days soon after reopening, you will likely not be hosting large conferences. Explore how these areas might be used differently to reduce operational costs and perhaps make them more attractive to guests or corporate RFPs.
- **Utilize this time to evaluate projects and technology limitations of your property.** This could include doing onsite construction or installing variable frequency drives, like motor additions that allow for varying equipment speed. These technological upgrades will help set your hotel up for success down the line.



COVID-19 has shaken CRE's foundation, bringing new and evolving circumstances that are sure to impact the industry long term. But with these challenges come opportunities to build a stronger future.

This starts with modernization and data-backed energy strategies aimed at generating new capital and portfolio-wide value and expands to countless other efficiency opportunities brought to light by AI and machine learning.

The financial benefits of this shift are undeniable, as are the climate impacts. While we are just beginning to see what CRE's new normal might look like, it is clear that a more agile and resilient era has arrived.



About Carbon Lighthouse

**It's time to cut energy use at portfolio scale.
Because one building at a time just doesn't cut it.**

Carbon Lighthouse is on a mission to stop climate change by delivering profitable climate solutions for every building in your portfolio. Its unique **Energy Savings-as-a-Service** model and patented AI software platform, **CLUES**,[®] turn wasted energy into guaranteed financial value, operational excellence and measurable climate impact at any stage of the asset lifecycle.

CLUES has analyzed more than 100MM square feet of CRE and 5 billion points of building energy data, to deliver portfolio-wide value and more than **\$250 million in savings** for clients including Goldman Sachs, Tesla, Hawaiian Airlines, L&B, The Carlyle Group, The Moinian Group, Madison International Realty, and AEW.

In the midst of COVID-19, Carbon Lighthouse is helping every portfolio reach its potential with:

- **Financial benefits:** Project and track ongoing value creation from energy investments and changes to operations for tenant and guest safety
- **Operational improvements:** Optimize daily operations so facility teams can focus on tenants and guests
- **Climate impacts:** Data-back ESG impact for investors, buyers, tenants and guests

Carbon Lighthouse's technology-enabled **Efficiency Production** can quickly and accurately assess financial upside across your entire portfolio, **delivering between 10-20 percent whole building savings on average**. Low performing assets, or those with renewable energy potential, can realize 20-100 percent whole building energy savings, while very well-run assets can expect 5-10 percent savings.

**Start generating more capital from your portfolio,
visit us online** 

