A Roadmap to Net Zero for Commercial Property

The essential five-step guide for property owners and managers to meet Net Zero targets and build sustainable portfolios

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Table of contents

- Introduction 3
- Net Zero in the property sector 4
- What keeps the industry up at night? 5
 - How to use this 5-step guide 6
- 5-step strategy for your Net Zero roadmap 7
 - Step 1: Monitor 7
 - Step 2: Optimise 10
 - Step 3: Upgrade and Electrify 13
 - Step 4: Renewables 15
 - Step 5: Carbon offsets 17
 - Watch industry experts 19
 - Portfolio case study 21
 - About CIM 22

Introduction

The operation of buildings alone accounts for $\sim 30\%$ of all global energy consumption, and $\sim 27\%$ of total energy sector emissions. After a drop in consumption in 2020 due to COVID-19 disruptions, carbon emissions from building operations are once again back to levels that need to be halved by 2030 if we are to successfully contribute to a Net Zero world.

While interest and investment in energy efficiency initiatives across real estate has increased, ongoing disruptions have distracted the sector from its green imperatives. While it is generally true that newly constructed buildings are more energy efficient, roughly 80% of buildings in 2050 have already been built. So, at the heart of the solution is bolstering existing stock via operational improvements.

The business case for a Net Zero portfolio

Adopting a Net Zero approach for property operations reaps a myriad of benefits for commercial owners and operators.

- It supports the commercial property sector's contributions to crucial government and global performance targets.
- Creating resilient Net Zero portfolios offers valuable risk management and resilience from climate change and related hazards, to which over <u>one-third</u> of REIT properties are exposed.
- Owners benefit as properties that meet the highest sustainability standards command at least 10% in rental premiums, and roughly 14% lower operating costs, complemented by improved tenant retention.
- The <u>global workforce</u> is increasingly mindful of the green credentials of the properties with which they engage. Studies have also noted a correlation between building performance and productivity, with improved cognitive performance of up to <u>26%</u> owed to green buildings.

In our recent <u>Net Zero webinar</u>, CBRE Investment Management's Robbie Epsom articulated the value of Net Zero from an investor perspective:

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"We're seeing organisations like RICS driving ESG KPI's, which are starting to be passed to the valuation community. And that's a really good thing, because it's giving them guidance on how you can consider ESG improvements when it comes to value."

Robbie Epsom, CBRE IM. Source: <u>CIM webinar</u>

Net Zero in the property sector

According to the <u>UN Environment Programme</u>, the world will need to cut its greenhouse gas emissions by 45 per cent within the decade to meet the most ambitious goals of the Paris climate change agreement. Time is "running out to defuse the climate time bomb", explains the UNEP.

Investors, commercial tenants, and consumers of real estate already expect that buildings they live, work and invest in are sustainable; the industry now needs to meet and exceed these expectations.

About <u>two-thirds</u> of the world's largest 2,000 publicly-listed companies have set Net Zero targets. Many of these are influential property organisations, stepping up and embracing the Net Zero challenge.

- A new <u>report</u> found almost half 43% of Australia's largest listed property companies have made commitments that closely align with the Paris Climate Agreement, aiming to achieve net zero greenhouse emissions before 2050 for their owned and managed assets.
- Amongst America's largest REITs, <u>Equinix Inc.</u> has committed to halve its greenhouse gas emissions by 2030
- International property consultancy CBRE has pledged Net Zero across the properties it manages, as well as its own operations and supply chain. JLL and Cushman & Wakefield have made similar pledges.
- Other large corporations with Net Zero pledges include Hong Kong's Swire Properties, London's Nuveen Real Estate, Houston's Hines, and Tokyo's Nomura Real Estate and Sekisui House Ltd.

There's a long way to go, but the property sector's contribution will be vital to reaching a Net Zero future. We advocate for this 5-step roadmap as the best way to get there.

What keeps the industry up at night?

Here are some of the thought-provoking questions posed by audience members to the experts on our recent Net Zero panel discussions.

What are your thoughts on relying on offsets for a credible net zero pathway?

How do you balance energy efficiency with tenant comfort?

What about the roadmap beyond net zero?

What are investors asking around management of stranding risk?

Are we seeing differential interest rates for brown vs green assets?

Are you seeing a lag in efficiency measures reflected in building assessments?

I wonder where scope 3 emissions come into play? E.g. occupants' commuting.

How have you managed demand-based ventilation vs CIBSE post-covid guidelines?

How about storage of surplus renewable energy generated on- / off-site?

Is there a lifecycle cost difference between 'all electric' vs gas fired systems?

How can properties be adapted to be more resilient to the impacts of climate change?

What financial incentives are available to support the transition?

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How to use this 5-Step guide

Monitoring, optimising, upgrading, investing in renewables and purchasing offsets. These are the main sustainability initiatives at the disposal of every commercial property owner and manager.

Importantly, while each should be considered as part of a wider strategy, not all are created equal. When it comes to developing and executing a successful Net Zero roadmap, the keys are data and digitisation; they power what we believe to be a highly effective 5-step framework for emissions reduction.



The process begins by ensuring you have a robust **monitoring** (1) strategy in place, powered by data analytics software. This is the foundational and ongoing initiative that should underpin all activity. The data ensures that plant and equipment are running efficiently, and enables you to identify opportunities for **optimisation** (2) or tuning. Subsequently, we recommend conducting a data-driven evaluation of what equipment you ought to **upgrade** (3) through an ROI payback analysis (which can now be informed by accurate historical and real-time data). Next is identifying opportunities for investment in **renewable** (4) energy sources. Finally, the purchase of **offsets** (5) to meet the remainder of your goals can be considered, but only as a last resort given the expert scepticism around its long-term viability.

Executing a roadmap to Net Zero should be a collective endeavour shared across different teams, including sustainability, design, development, and operations. Embedding sustainability strategies into KPIs and ensuring that on-the-ground teams have the resources and capacity to implement them alongside their other priorities will be crucial for these strategies to be successful. This requires technology, data, workflow tools and supportive leadership.

Step 1: Monitoring, Data & Digitisation

The digitisation and subsequent monitoring of your commercial property portfolio should be the foundational element of your Net Zero roadmap. The operational data provides a benchmark to measure all subsequent initiatives, and will help you identify the biggest opportunity areas to improve your sustainability performance.

It should not be executed in isolation, but rather should remain 'always-on' throughout the journey. Data-based monitoring of plant, equipment and systems (such as HVAC) and where this comes from (smart building technologies such as analytics, networked sensors, BMS, IWMS or IoT) needs to be set up at the beginning, and remain an active, continuous process, while the rest of your strategy is rolled out.

Why is it so foundational?

- Without data, organisations are simply shooting in the dark when it comes to enhancing buildings' operational performance and energy efficiency.
- Monitoring allows you to identify and focus on the sub optimally performing assets first (instead of trying to squeeze any efficiencies out of an already high performing asset). In other words, it helps you improve the performance of a lowly rated asset, while at the same time ensuring that a highly rated asset is maintained, and doesn't go backwards via 'energy drift'.
- From a cost perspective, strategies around monitoring and optimisation are the most 'controllable' expenses among the five strategies, while costs will increase progressively as you approach investment in upgrades, renewables and offsets. Further, we can expect these expenses to keep rising until 2030 and beyond.
- From an efficiency perspective, even the latest equipment in commercial buildings can operate at suboptimal levels without constant monitoring and performance analysis.

"Data coverage and understanding the potential of your building should come first. We've seen that by rewarding portfolio data coverage in terms of operational performance metrics, like energy consumption, GHG emissions, water waste - that indeed owners have been able to improve the performance of their of their assets. Just by understanding what's happening, in the base building and tenant spaces."

Ruben Langbroek, GRESB. Source: <u>CIM webinar</u>

Energy drift and what causes it

In general, when it comes to consuming energy efficiently, buildings do not perform as well as they did when they were first built, and the gradual loss of this efficiency is known as energy drift. Energy drift happens for various reasons, including mechanical wear and tear, malfunctioning equipment, alterations to BMS controls, changing site conditions, building design defects, or human error. The <u>Lawrence Berkeley National Laboratory</u> reports that buildings can lose as much as 10-30% in energy efficiency and costs, every one to two years, only to 'drifts'.

The performance of even the most perfectly commissioned and tuned systems deteriorates over time. According to the Building Owners and Managers Association (<u>BOMA</u>), this can translate into billions of dollars wasted, as electricity and maintenance costs account for ~\$3.5 of ~\$8 spent per square foot (~0.1 sqm) in annual operating costs in building areas. Furthermore, drift can raise capital expenses, disrupt the comfort of your occupants, and lead to safety risks arising from equipment issues left unchecked.

To identify and prevent drift, property owners and managers need equipment-level data to resolve specific issues promptly. When it comes to drift, monitoring is essential to prevent the hidden dangers of moving backwards (i.e. entropy). As a property manager, you will struggle to move forward with your Net Zero ambitions unless you stop yourself from moving backwards through drift. Setting baselines is particularly important in a post-covid environment where plant and equipment may have not been optimised for the correct loads.

24/7 monitoring of equipment allows you to identify and rectify failures immediately, preventing massive triggers of drift, such as overnight operation of equipment, BMS overrides, schedule overrides, fire alarm failures, or construction or fit-out activity.

The case for digitisation

A completely digitised commercial property sector seems ambitious. But more and more stakeholders are seeking greater visibility into their portfolios and are adopting technology that consolidates useful data and gives them unparalleled insight.

The typical Asset Manager uses, on average, <u>5 to 15</u> business software applications daily; digitisation gives you aggregated data across your assets in a way that is accessible, consistent, and integrated. The preference is to consolidate tools to streamline and save time.

There are a number of advantages of a digitised portfolio. Here are some of the most compelling.

- Allows for the continuous monitoring of all plant and equipment so that failures, major anomalies or tuning opportunities can be immediately identified.
- Reduces the onus on technical knowledge within the property team as all the requisite data, insights and steps for resolution are readily accessible.
- Supercharges collaboration between property operation teams, as workflow modules enable effortless assignment of actions to the right team member, enabling speedier resolution of issues.
- Offers visibility across entire portfolios, as data is consolidated into a singular consistent source of truth, enabling outliers and multi-asset trends to be easily spotted.
- Enables you to monitor, trend and benchmark team and supply chain performance, thermal comfort, indoor air quality, energy consumption, emissions avoided and much more.

The result is a data-driven approach to facilities management, whereby real-time data-led insights drive operational efficiency, optimisation in energy consumption, reduced building drift and mitigated risk.

Start taking stock of your data

In order to lay out a fully-fledged digitisation plan founded in monitoring, the first step is to understand what data you currently have available and how best to aggregate it. Consider answering the following questions as a starting point:

- Do you currently have access to all of the data sources you feel you need?
- Do you have a way to tap into missing data?
- Is your data presented in a consistent portfolio-standardised way for ease of reference and comparison across assets?
- Is your data available to you in real-time?
- Do you have the ability to vary the level of granularity?
- Is your data in such a format that it is accessible to even non-technical team members?

If you answered no to any of the above, we recommend considering a building analytics provider to facilitate the necessary changes required to reap the benefits of a digitised portfolio that is being continuously and effectively monitored.

Step 2. Optimisation

Optimisation is another strategy which offers minimal cost outlay and fast returns. Put simply, optimisation seeks to maximise the operational efficiency of existing plant and equipment.

With real-time insights derived from your monitoring efforts, you will have accurate baseline data as guidance on how to optimise your assets' operating condition, facilitating peak performance. You'll know where to reduce drift, and how to improve the efficiency of the most important plant and equipment, including lighting, HVAC, air compressors, equipment, coolers, motors, and so on. The analytics you have set in place should help you automatically identify when these optimisations are not happening.

Consider space utilisation, for instance. Ask yourself how much of your building space is unused, how much is optimised vis-à-vis occupants' needs, and whether or not maintenance is optimal and available as required.

Think about your HVAC controls system. HVAC systems typically use more than <u>60%</u> of a building's total energy consumption and up to a third of that energy is often wasted due to malfunction, performance degradation and improperly tuned controls. When you consider that virtually all large buildings have HVAC operational issues, it's a lot to ignore. You could have established appropriate setpoints and fine-tuned them, perhaps even gotten rating-certified.

But there's a lot that could have happened since then: Facilities Managers or contractors may have forgotten to reset schedules. Tenant occupancy may have changed considerably. Settings may have been overridden manually at some point, perhaps leading to air conditioning systems operating outside of business hours. A myriad of other changes gone unsupervised could be driving operational inefficiencies and their associated costs.

Additionally, consider your set points. Typical set-points are 21–22°C in winters and 23–24°C in summers. However, for every 1°C adjustment of the air-conditioning closer to the outside temperature, the energy required for heating and cooling is cut by 5–10%. The feeling of an office being freezing in summer and stuffy and hot in winter means that the set points may not be optimised, and that your building is working a lot harder than it needs to in providing those temperatures. Once again, analytics will help you – they'll point you to the optimal time-use data. It will help you establish what should be tuned, and when.

Smart software will help you identify all your optimisations, from basic to advanced, showing you exactly what you need to do. You just need the technology to identify it, and then the culture to execute it.

Optimisation ensures that before committing to any capital investments, you're being financially prudent and making sure that all your existing systems are working efficiently, you're proactively fixing system issues, and you're continuing to monitor systems closely to ensure there is no drift.

Common operational inefficiencies in commercial buildings

To begin optimisation, consider the results of an International Refrigeration and Air Conditioning Conference <u>study</u>, which quantified the energy impact of common building faults in the USA. The study reported that thirteen key faults across commercial buildings typically increase their energy consumption by 4-18%.

Some common faults include:

- Software programming errors, such as improper setpoints or equipment operation setups.
- Unbalanced airflow, insufficient evaporator airflow, or dampers not working properly.
- Improper controls hardware installation, such as poor thermostat location, improper commissioning, or controls failures.
- Waterside issues, such as valves not closing properly.
- Refrigeration circuit issues, such as air-cooled condenser fouling or improper refrigerant charge.

Net Zero strategies often speak a great deal about energy efficiency 'upgrades' and exhaustive equipment 'retrofits'. However, adequately considering optimisation is crucial, because poorly run and unsupervised buildings will still perform poorly in terms of energy efficiency, no matter how elaborate the upgrades.

There's a lot you can begin to do to optimise your portfolio right away.

Optimisation tips to improve your building's performance

In many cases, when supported by robust building analytics data, simple tweaks to Building Management Systems can drive efficiencies, reduce energy usage, lower your carbon footprint, all without compromising tenant comfort. Here are a few suggestions.

Revisiting temperature setpoints and ranges

Even as little as a 1°C change can translate into significant efficiency improvements. A study found that properly tuning the target temperature of your building can, in some cases, produce energy savings of as much as 60%. It's the same for dead bands; a wider range can reduce energy use. Typically, temperature dead bands are set to $\pm 2^{\circ}$ C of the setpoint, causing HVAC systems to go on and off with minor temperature fluctuations, consuming significant energy.

Zone temperature setpoints are often adjusted by Facilities Managers and contractors to address tenant complaints – it's important to align setpoints so that nearby systems aren't fighting each other.

Using automation with presence detectors

Presence detectors that adjust heat, lighting and ventilation based on occupancy, integrate with booking systems, and sensors that harvest daylight can all increase equipment lifespan and cut energy costs.

Installing local shutdowns and synchronisations

One study claims that idle computers left on standby, or 'empty hot desks' cost UK businesses $\underline{f30m}$ daily. Automation to isolate hot desks and cut off localised energy supply, using computerised booking or presence detectors, can significantly reduce energy consumed. Revisiting your BMS for better synchronising can also highlight missed opportunities, such as shutting off HVAC systems when offices are closing. Air quality and air purity monitors can help optimise mechanical ventilation.

Optimising lighting for maximum efficiency

In many commercial buildings, lighting is a significant energy consumer. Based on your equipment and space usage, there's a lot you can do to optimise energy, from taking advantage of natural daylight, using motion sensors, or asking occupants to be mindful of turning off lights.

Adjusting HVAC systems

HVAC systems are usually the second-highest guzzlers of energy in a building. Simple checks to optimise energy use include ensuring all HVAC equipment is sufficiently maintained, and making minor thermostat adjustments that occupants won't even notice.

Temperature control

Effecting Outside Air Temperature (OA-T) lockouts can help prevent chillers and boilers operating unnecessarily. Optimisation is also generally possible when it comes to cooling towers wet-bulb temperature control, adjusting the chiller's chilled water (CHW) temperature setpoints, and even chiller cooling & boiler heating calls: for central cooling systems, you want to ensure that chillers kick on at the right time - engaging chillers early increases the risk of energy over-consumption. Similarly, boilers should be enabled when needed, not before.

Economy mode operation

Another form of optimisation is the 'economy mode' operation, or the use of 'free cooling' wherein use of outside air is more efficient to cool the building than return air.

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Night purge operation

Buildings in warmer climates need additional cooling during evenings. In commercial offices unoccupied over weekends, however, building temperatures may soar, placing a massive load on building air conditioning, which can be minimised using a night purge.

John Lewis Partnership is careful to balance the need for energy optimisation with a superior customer experience. For Waitrose, refrigeration monitoring is a critical business requirement, but optimisation opportunities still exist in standardised setpoints and remote heating, lighting, and cooling controls.

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"A robust optimisation strategy gives us the ability to react. If it's a particularly cold or particularly warm day, we can globally change setpoints. So we conserve energy without disruption to customers."

Neil Coleman, John Lewis Partnership. Source: <u>CIM webinar</u>

You can read more about optimisation strategies for improved sustainability performance in CIM's eBook on **Building Optimisation.** Find it <u>here</u>.

Step 3: Upgrade & Electrify

Monitoring and **optimising** equipment can be hugely beneficial, but there will always be instances where equipment will need to be **upgraded** or replaced.

With the right upgrades, any commercial building (even an older one) can significantly reduce its energy consumption and environmental impact *without* a full renovation.

If performed correctly, monitoring and optimisation should generate significant cost savings which property owners can then invest in upgrades to dated equipment, system replacements and electrification. Where possible, equipment that most intensively consumes fossil fuels should be considered for replacement, such as furnaces, boilers or water heaters. Electrification can be one of the most expensive factors in decarbonising a building, but can be one of the most important long-term.



Important upgrades to consider

While no two commercial buildings are exactly alike, we suggest property owners consider some of these capital upgrades.

- LED and lighting sensor upgrades.
- Chiller and boiler upgrades as required, as opposed to waiting for the end of their lifecycles (as informed by the data analytics you would have now set in place).
- Using variable speed drives (VSDs) on pumps, allowing for more variability and better payback.
- BMS upgrades (sensor or controller faults or overrides, as captured, monitored and informed by data).
- Upgrades to HVAC and other energy systems for optimal performance.
- Modifications for natural ventilation technology and fresh air intake where possible.
- Window upgrades for outdoor temperature and noise protection.
- Investing in energy-efficient emergency backup power sources.
- Investing in or upgrading smart meters for water, gas, and electricity for better tracking and lower energy consumption.
- Exploring upgrades such as the use of cooling paint to reflect solar radiation, or AI-powered tinting to reduce surface temperature.
- More creative upgrades could even include green landscaping or better water conservation features.

De-gasifying and Electrifying your portfolio

An important element of upgrading your portfolio is electrification. Removing the dependency of commercial properties on fossil fuels through electrification will allow us to transition buildings from being amongst the largest planet-warming polluters to contributors of a decarbonised world.

Gas is responsible for almost 30% of building energy consumption in Australia – so eliminating gas from our buildings would make a material difference in a short space of time.

Davina Rooney, CEO of Green Building Council Australia

Given the efficiency of electric technologies relative to fossil fuel-based alternatives, electrification can significantly reduce energy usage and emissions. There are two technologies in particular that can be implemented for maximum impact:

- Heating and cooling systems: Heat pumps are a key technology utilised by building owners seeking Net Zero Energy Certifications. Installing a heat pump system may provide significant savings through reduced bills as they are three to five times more efficient than electric-resistant systems.
- Smart building platforms: Smart systems have a critical role to play in helping buildings to achieve greater efficiencies. With accurate responsive energy management software, you can monitor consumption to switch on and off loads to limit usage and lower emissions. Armed with this data, owners can proactively pinpoint opportunities to reduce energy usage, create safer and more productive working environments and lower costs.

Avoidance of CO2 emissions is not the only advantage of electrifying - they can help owners improve building security, safety, accessibility, and environment quality, all of which can lead to more satisfied occupants, additional revenue, gains in asset value and better rental yields.

Step 4. Renewables

To build a truly sustainable world, we must ultimately transition to electrified portfolios; that is, all-electric buildings powered by solar, wind and other sources of zero-carbon electricity.

This brings us to Step 4 of our Net Zero roadmap: **Renewables**, investment in which can occur either onsite or offsite.

Onsite Renewables

Onsite electricity generation is generally only possible if the property in question offers the requisite space, as is the case with larger properties like airports or shopping centres. Retail centres often have large enough surface areas to allow, for instance, installation of a large volume of solar panels (sometimes with enough base-building to offer the excess to the grid). In some commercial properties, wind turbines may be possible too. In the case of others, such as office buildings, these strategies may be harder to execute due to space limitations.

While solar energy remains the <u>main renewable energy source</u>, wind energy, geothermal energy, hydropower, and biomass energy from organic materials can also be explored.

Specifically for commercial property, strategies include:

- Exploring rooftop photovoltaic (PV) systems that generate electricity directly from the sun, using solar panels mounted on roofs.
- Building integrated PV systems with solar panels integrated into the building structure such as walls or even windows by using transparent panels.
- Using solar thermal systems which heat water directly from the sun.
- Using pumps that heat water using warmth from the surrounding air, water or ground.
- Exploring solar thermal cooling, which uses the heat of the sun to drive cooling and /or dehumidification processes.

- Looking at 'passive' solar design solutions that would naturally near or cool buildings without a need for 'active' heating and cooling systems.
- Exploring energy storage systems such as batteries or thermal storage.
- Using control systems that manage the flow of energy into and out of the property.
- Assessing the use of wind turbines where appropriate.

In the table below, CBRE summarises the the top sources of clean energy, their potential impact on reducing carbon emissions and whether they are realistic for commercial property.

	Up-front investment	Impact on reducing carbon emissions	Realistic for a commercial property?
Solar Harnesses the energy produced by the sun, even in cloudy weather	\$\$	High	Yes
Solar thermal The energy harnessed from the sun is converted to heat instead of electricity	\$\$\$	Medium	Yes
Wind Large turbines harness the kinetic energy of the wind and convert it to electricity	\$\$\$\$	Medium	No, Rarely applicable for an individual site
Geothermal Extracts heat from the Earth's interior using technology including wells and heat pump technology	\$\$\$	Medium	No, Only ground source heat pumps
Biofuels Organic materials including wood, charcoal, algae and manures produce heat and power. They create GHG emissions, but at lower levels than fossil fuels.	\$\$\$\$	High	Yes

Offsite Renewables

Renewables can also be utilised offsite through utility providers. A number of businesses are turning to power purchase agreements (PPAs) or Virtual PPA's (vPPA) to directly procure off-site renewable energy generation.

Under a PPA, the energy vendor sets up and maintains the renewable energy technology—for example, a wind farm or solar energy array—and the energy purchaser agrees to buy the power on a per kWh basis. A vPPA is a form of hedging with an agreed baseline price per kWh. The renewable energy provider sells power into the local wholesale market. If they sell it for more than the baseline price, they pay you the difference. If they sell it for below the baseline price, you pay them the difference.

While there is much that owners and managers can gain by integrating renewables into their Net Zero roadmaps, we reiterate the importance of prioritising Monitoring and Optimisation strategies (Steps 1 and 2). At their core, these strategies drive operational efficiency which can drive energy savings. The less energy that is used, the greater the potential to earn money by selling it back to the grid, thereby reducing the payback period on your upgrade and renewable investments.

Step 5: Carbon Offsets

Step 5, the last in our 5-step Roadmap to Net Zero, involves **carbon offsetting**. Through carbon offsets, organisations can determine the extent of their emissions, and then attempt to mitigate their activities by helping reduce carbon elsewhere, via the purchase of units to compensate for their emissions. Carbon offsetting <u>projects</u> typically include reforestation, investments in renewable energy in developing nations, or converting waste to energy.

While using carbon offsets is indeed considered a valid emissions reduction strategy, we don't recommend relying upon it as a core part of your overall sustainability strategy: it is very expensive, with the costs of offset units expected to climb even further, it is not renewable, and is often seen as an act of 'greenwashing'.

Steps 1 through 4 (monitoring, optimisation, upgrades and investment in renewables) should help you reduce everything you can – or as much as you can – in terms of energy consumption, so that by the time you get to Step 5, you need only to offset the negligible remainder with investment in carbon credits.

Typically, it's when property owners and managers go directly to carbon offsets as a recourse for sustainability, without making any other efforts to move towards Net Zero (such as reducing carbon in construction, attempting to increase operational efficiency, or transitioning to renewables), that they are perceived to be 'greenwashing' and will likely fail to maintain momentum.

You also need to factor in the market for carbon offsets. Currently, the price of carbon offsets is 'unsustainably low' due to a surplus on the voluntary market. Research predicts carbon offset prices will grow exponentially in years to come, up from just US\$2.50 per tonne of CO2 in 2020 to between \$11 and \$215 per tonne in 2030.

Given the ambiguity in the direction of the market and the potential expenses for property owners, relying too heavily on carbon offsets can be bad for both your brand image and your bottom line. Ensure you use it as the last supplementary part of your strategy.

Page 17

On the theme of offsetting, our recent webinar panel discussed the theme of provenance. "The closer it is to your business, the better," said Robbie Epsom of CBRE Investment Management. "In our case, that might be investing in land and using that as a nature-based solution to carbon removal."

Carbon removal investment comes down to nature or technology-based solutions like direct air carbon capture, which Robbie mentioned as an opportunity for the built environment. But, he warned, "It's not something we should all be focusing on today because we should be focusing on all the other things we discussed: efficiency, electrification, renewables."

John Lewis has gone a step further, announcing that it will reduce its operational greenhouse gas emissions to Net Zero without purchasing offsets. "It's an opportunity to try and push things, to deliver everything we possibly can," said Neil.

Over-reliance on carbon offsetting schemes is often associated greenwashing. Davina Rooney, the CEO of Green Building Council Australia has a simple message on avoiding the pitfalls of greenwash accusations

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"If you're making a statement of opinion, you need a position of fact to verify it. Working with partners to determine how you can verify what you've said is true. This puts third-party verification behind your claims."

Davina Rooney, CEO of Green Building Council Australia

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Watch industry experts

To further enhance your learning, we invite you to explore our webinars dedicated to this critical subject. These engaging sessions feature firsthand accounts from some of the foremost leaders in the industry, providing in-depth insights and strategies on achieving Net Zero.

APAC webinar: The roadmap to Net Zero for commercial property

Hear from Magali Wardle from NABERS; Ruben Langbroek from GRESB; Steve Ford from The GPT Group; and David Walsh from CIM.



EMEA webinar: The roadmap to Net Zero for commercial property

Hear from Robbie Epsom from CBRE Investment Management; Magdalena Gibney from NEPI Rockcastle; Neil Coleman from the John Lewis Partnership; and Paul Walsh from CIM.



Expert takeaways

We asked the expert panel of our recent webinar to share one key piece of advice for accelerating Net Zero progress in the property industry.

"The changes we make at scale not only transcend borders in a way that politics just can't do, but they cascade down to all those occupiers and the real economy. So scale, scale, scale. That is the opportunity we have to drive this and get those solutions at scale."

- Robbie Epsom, CBRE Investment Management

"We need to make sure that we do what we say we do, so we walk the talk. Committing to ambitious yet achievable targets based on science is very important."

- Magdalena Gibney, NEPI Rockcastle

"We need to speed up. We need to take a bit more risk. We need to accelerate the pace of change. When you look at the amount of investment out there that's ready to go and the amount of projects that are ready to go, we just need to smash those two together and get on with it."

- Neil Coleman, John Lewis Partnership

"There's a perception that Net Zero journeys are always capital and time intensive. But I'd like to change the thinking there to offer the option of using data that already exists in buildings to make significant inroads. There's an economically viable opportunity teed up right in front of us, so let's execute on it."

- Paul Walsh, CIM

Portfolio Case Study: Charter Hall's partnership with CIM drives portfolio efficiency through digital transformation

Propelled by a vision to harness the power of a digitised Office portfolio, leading property group Charter Hall has been reaping the benefits of an operational model driven by data and technology since establishing a partnership with CIM. Supporting Charter Hall's digital transformation journey, CIM's PEAK Platform provides building analytics across 58 properties covering 1.45 million square metres¹, improving portfolio visibility, team collaboration, operational efficiency, tenant experience, and environmental performance.

Key Partnership Wins

58	office sites, covering 1.45 million sqm
2,978	actions closed, at an 82% closure rate
244	stakeholders actively using the platform
58	NPS given by FM's at Charter Hall sites
13	data providers consolidated into 1
91%	indoor environment, up from 84% in April 2021



About CIM

CIM delivers innovative building analytics software that helps run large buildings at their peak performance. Our award-winning SaaS solution, the PEAK Platform, integrates building intelligence and machine learning to improve efficiency, sustainability and comfort across property portfolios. CIM's customers include large real estate investment trusts, superannuation funds, governments, major cultural institutions and property portfolio owners and operators globally.

The PEAK Platform, our advanced building analytics solution, empowers property teams to work smarter and more collaboratively - generating significant operational efficiencies across an entire portfolio. Critical operational activities are automated and the completion of key tasks are accelerated by leveraging digital workflows across the entire supply chain.

What does the PEAK Platform give you?

01

Prioritised alerts with detailed fault identification & solutions to limit alarm fatigue

04

Centralised tracking of contractor performance across multiple buildings

02

Effortless 'Click to Assign' workflow, so contractors can fix issues before they escalate

05

Address issues like temperature and humidity before a tenant complains

03

Deep dive & interrogate building performance, today and historically

06

Deliver sustainability wins to drive environmental impact

PEAK				🗘 Vew Report 🖉	Amie Lopez	
Total Sites		Total Assignees		Total Equipment		
10		57		5390		
Electricity Usage	5.Darge	Actions Closed		Thermal Comfort Score		
2 Marin Way		2 Maren Hitay		2 Marin Way		
15 Walsh Plaza		15 Watch Place		15 Walket-Place	. 20	
194 Lana Road	7	104 Late Road		194 Lake Road		X
45 Sundrop Ave		43 Sundrug Aus	v	43 Sundrage Ave	-	-
1215-GraceFeld St		1205-Dracefield St	41	1205 Gracoffekt St	- P	
2/54 Janary Main Lane		2/34 Janary Main Lane		2/34 Janary Main Lane		1.3
3 School Dreet		3 School Street	23	3 School Street		100



Want to operate your building more efficiently to accelerate progress towards Net Zero? Get in touch with CIM to discover how.

