



Net zero: a collaborative way forward

The UK Commercial Real Estate Market



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Simon Durkin

Head of European
Real Assets
Research and
Strategy
BlackRock



Charlie Foster

Managing Director,
Real Estate
Finance, Large
Corporate
NatWest

Contacts

simon.durkin@blackrock.com
charlotte.foster@natwest.com

Executive summary



COVID-19 has heightened attention on the climate challenge and accelerated the need to act now.



Governments, companies, lenders and investors are increasingly committing to the principle of net zero carbon, whilst also recognising the need for collective action.



According to the World Business Council for Sustainable Development, the built environment contributes over 40% of global greenhouse gas emissions and there needs to be a major focus now on decarbonisation in order to achieve global net zero carbon goals.¹



The International Energy Agency² suggests that by 2030 all new buildings need to be net zero carbon-ready. By 2040, 50% of existing buildings need to be retrofitted to be net zero carbon.



It is our view that landlords must consider the potential benefits of acting now to position their assets on the net zero journey. Such benefits may include the ability to attract and retain tenants, take advantage of more attractive financing and mitigate against future depreciation.



In our view, success will depend on the collaboration between all industry players including government, lenders, landlords, occupiers, asset managers, developers and consultants to support the sector in the transition to net zero.



Real estate plays a critical role in the journey to net zero carbon. Like other sectors, industry collaboration is essential to maximise the impact of our actions.”

Stephen Cohen

Head of Europe, Middle East and Africa,
BlackRock



The journey to net zero requires a coming together of stakeholders across industries including real estate, and NatWest Group is proud to be partnering with BlackRock to further this important conversation.”

Alison Rose

CEO, NatWest Group

1. UK GBC Net zero carbon: energy performance targets for offices, Jan 2020
2. The International Energy Agency Net Zero by 2050, May 2021;

The journey to net zero carbon



Explaining the Need

Increased focus on net zero

2021 has been another year where the adverse impacts of climate change have materialized across the globe. Wildfires, hurricanes and flooding have once again caused billions of dollars of damage, and taken a grave toll on human life.

The Sixth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC)¹ published in August 2021, highlighted the **irreversible changes to our global climate from rising greenhouse gas emissions**, but a strong conviction remains that there are clear pathways to reach net zero carbon by 2050. If anything, the IPCC report further highlighted the **urgency in rapidly decarbonising** our global economy by 2050 and ensuring no more carbon is emitted than is removed from the atmosphere, in order to keep global warming below 1.5°C.

Momentum behind climate change mitigation is building. Rather than derailing these efforts, COVID-19 has in many ways heightened the focus and accelerated the need to take action. **Companies, governments, lenders and investors are increasingly committing to the principle of net zero carbon** and the monumental shift required to transition our global economy is well underway.

A collective effort is required

In order to advance the solutions for transitioning towards, and achieving, net zero carbon, there is a **growing recognition that a collective effort will be critical**. Ultimately, **there is no company whose business model won't be profoundly affected by the transition** to a net zero economy. Across the economy, including within the real estate sector there will be a **necessity for industry wide collaboration** to address the multifaceted challenges of decarbonisation.

The government, lenders, developers, landlords, asset managers and occupiers will all be vital stakeholders on this journey.

The role of real estate in the Net Zero journey

We believe real estate will play a central role in the global energy transition and the necessary move towards a lower carbon economy. With the **built environment contributing to over 40% of global greenhouse gas emissions³**, and with half of a building's impact over its lifetime coming from embodied carbon emissions, there needs to be a major focus on how to decarbonise both commercial and residential real estate in order to achieve net zero.

We see this focus assembled around three action pillars:

1. **Advancing** initiatives and solutions that directly or indirectly lead to the avoidance of emissions
2. **Reducing** emissions through the rollout of renewables and increased energy efficiencies
3. **Offsetting** emissions that cannot be eliminated further

Over the next few decades we believe there will be **significant scale up of existing technologies**, such as energy efficiency solutions, on-site and off-site renewable energy and carbon capture and storage, that will evolve the existing infrastructure and pave the way for real estate to decrease its carbon footprint.

The real estate industry is embracing this transition. We believe that net zero carbon related initiatives such as **advanced data monitoring and data collection, reducing emissions through energy efficiency improvements and incorporating renewable energy sources** all present opportunities for real estate investors to play their critical role in active decarbonisation whilst also creating value.

1. IPCC Sixth Assessment Report, Aug 2021; IEA Net Zero by 2050, May 2021;
2. UK GBC Net zero carbon: energy performance targets for offices, Jan 2020;
3. WBCSD Net Zero Buildings, Jul 2021;
4. GRESB, 2021
5. International Energy Agency, 2021

Advance Data Monitoring

On average, landlord energy supplies within a typical UK office relate to **less than 30% of the total floor area**, highlighting the need for whole-building measurements (GRESB)⁴

Reduce Emissions

The office sector needs to **reduce energy demand by an average of 60%** by 2050 to help the UK achieve net zero (UK GBC)²

Offset Emissions

By 2050, **7.6 Gt of emissions will still need to be captured** to achieve net zero carbon (IEA)⁵

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The timescales to achieve Net Zero require every participant in the real estate industry to play their part in a collective response.”

Charlie Foster

Managing Director, Real Estate Finance, NatWest

Explaining the Need

Contribution of real estate to global emissions

In line with global trends, the UK built environment and infrastructure accounts for up to 40%² of national carbon emissions. Most of these emissions are generated from the operation of these buildings, for example the energy required to heat, cool, light and run the properties.

The **current supply of net zero carbon buildings in the UK is not going to be sufficient to meet the growth in demand**, and this is a deficit that is recognised across many other global real estate markets. The International Energy Agency (IEA)¹ projects that in 2050, half of the existing stock of buildings will still be standing and floor area is expected to increase 75% globally. This is especially true for the UK where 80% of the buildings that will be around in 2050 are already standing today.

To achieve Net Zero, the IEA suggests that **by 2030 all new buildings need to be net zero carbon-ready**. Further to that, by 2040, 50% of existing buildings need to be retrofitted to be net zero carbon aligned, and by 2050 that needs to be 85%. Any delay in implementing the level of retrofitting needed by 2030 would **result in such a steep ramp up in demand, that retrofitting most buildings by 2050 would be virtually impossible**.

In short, according to the IEA, **action is needed in the next decade to avoid an increase in longer term capital expenditure and depreciation**.

However, it is important to note that **buildings are only one part of the global economy that needs to be decarbonized** and that their own decarbonization journey will rely heavily on the increasing share of renewable power in the electricity grid. This means that in order for electricity generation to reach net-zero emissions globally in 2040, which is what IEA sets as needed, energy in buildings needs to be used more efficiently.

This efficiency also needs to be achieved in alignment with a worldwide growth in energy demand.

Simply looking at the office sector as one component of the real estate market, **the UK Green Building Council² (UKGBC) has identified that this sector alone will need to achieve an overall 60% reduction in energy use by 2050**, and that simply relying on decarbonisation of the grid is not a viable solution for the sector.

The challenges ahead

The real estate industry is making strides in developing ways to address the need to get to net zero, and this momentum has significantly accelerated in recent years. However, common **challenges remain**, and one of the most notable of these is the access to 'whole-building' data.

Even after over a decade of industry-wide focus on energy performance, **landlords still face challenges in accessing accurate, complete energy data for their tenant occupied space**. In most instances tenant-controlled energy consumption far exceeds that of landlord-controlled consumption and gaining visibility of what this tenant footprint entails remains a barrier to understanding the energy profile of whole buildings. This is critical information for understanding how any given building is positioned on the transition pathway. In order to set realistic reduction targets, this information needs to be collected. Both **active tenant engagement and the automation of metering** are two key tools being adopted by landlords to drive this data awareness, but many gaps still exist.

In addition, the **lack of established industry net zero carbon standards or certifications has generated a plethora of differing approaches** to addressing the decarbonisation issue. This fragmentation makes it harder to determine when a property or portfolio has achieved 'net zero' status, or where it might be positioned on the path.

Milestones for achieving net zero by 2050

2025

No new sales of fossil fuel boilers

2030

Universal energy access and all new buildings are zero-carbon-ready

2035

Most appliances and cooling systems sold are best in class

2040

50% of existing buildings retrofitted to zero-carbon-ready levels

2045

50% of heating demand met by heat pumps

2050

More than 85% of buildings are zero-carbon-ready

Source: The International Energy Agency Net Zero by 2050, 2021;

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We are in a critical year at the start of a critical decade for these efforts.”

Dr. Fatih Birol

Executive Director, International Energy Agency

1. The International Energy Agency Net Zero by 2050, May 2021;

2. UK Green Buildings Council: UK GBC Net zero carbon: energy performance targets for offices, Jan 2020

When is it most effective to implement features of Net Zero Carbon?

Urgency: The upside of being ahead of the trend

The pandemic has been a wake up call in terms of environmental and social awareness. **Good intentions are no longer enough**, and approaches to sustainable investing now need to be actioned.

Institutional investors are recognizing the opportunities to retrofit existing assets and create net zero carbon buildings at a more rapid pace than previously anticipated. At the same time **lenders are making more decisive sustainability commitments** and further reinforcing the imperative that now is the time to act in order to mitigate future asset depreciation and financing risks.

The wider benefits of achieving net zero are becoming clearer. Not only in terms of taking positive action to avert the climate crisis, but also in having **more efficient buildings, that are pleasant to work in with lower running costs**. Whilst the ultimate objective of net zero is clear, there may also be an upside in being a front runner in the transition.

There is also a growing consensus that a meaningful **rental and price premium for net zero carbon buildings exists**, this "green premium" is estimated to be circa 10%¹ for office space. This view aligns with the perspective that there will be a polarisation of office space attractiveness, and a **key factor driving this polarisation will be the asset's ability to transition**.

Furthermore, when considering tenant leasing cycles, there may only be a couple of refurbishment opportunities between now and 2050. **Landlords must consider the benefits associated with acting now**, especially in the context of construction and materials cost inflation.

The consequence of failing to act

Increasing interest in net zero is already driving the conversation between landlords and tenants as they prepare themselves for net zero occupation.

As such, there is **increasing demand for sustainable office space** and according to the Energy and Climate Intelligence Unit (ECIU) 20% of the world's biggest companies

and occupiers have made commitments to cut emissions by 2050². This means that commercial buildings which are not on the net zero pathway will no longer be suitable for their occupation, as this would contradict their organisational sustainability agenda.

According to a recent report by Property Market analysis (PMA) there will be a 'tipping point' amongst institutional investors, where buildings that are unsuitable to undergo the transition to net zero carbon are no longer a feasible investment. The reputational damage associated with such assets means they may also be less desirable for occupiers. However, in our view, this also **presents a clear opportunity for landlords to add value through the early refurbishment** and to bring more appropriate 'new core' stock back to the market.

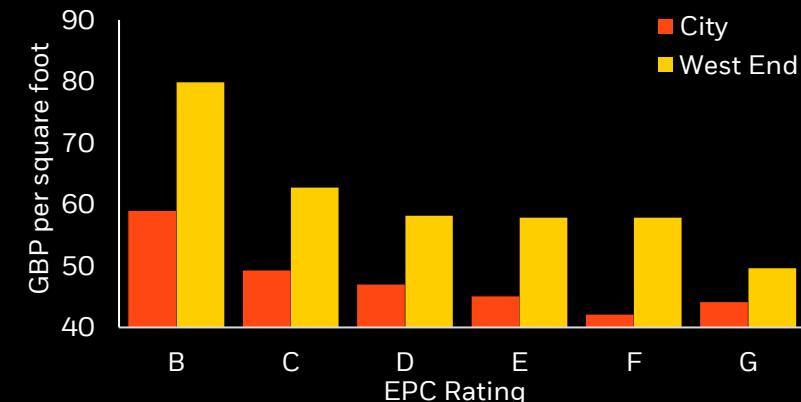
The biggest transitional risk in Europe is regulation. The UK Government Net Zero Strategy³, announced in October 2021, increases the minimum Energy Performance Certificate requirement for the letting of commercial property to "B", from the current minimum of "E", by 2030 with potential interim milestones. The uncertainty around regulatory change highlights the elevated risk landscape that landlords and tenants are currently navigating.

For lenders, regulatory and capital requirements are set to increase and, in the absence of demonstrable progress, shareholder and customer activism will bring added pressures whilst the credit risks associated with funding "brown buildings" will grow through rising letting risks and ultimately lower valuations. **NatWest and other major lenders have already made public commitments to significantly reduce the carbon footprints of their lending activity** and these factors will inevitably make financing brown buildings less attractive.

For owners and investors this might initially mean more expensive debt, and **in the longer term some buildings may become impossible to fund at all**. Action needs to be taken immediately to prevent these assets becoming stranded in the medium to longer-term.

The Price of Energy Performance

Office Rental Costs in London for select energy efficiency ratings



Source: Radius Data Exchange, July 2021. The chart shows the average office rental price in GBP per square foot for London's City and West End areas, for different ratings on the UK's Energy Performance Certification (EPC) system.

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One of the biggest challenges faced today by landlords and lenders is transition risk, with regulatory drivers adding to the urgency to act now, not later, on decarbonising real estate.”

Katherine Sherwin

Global Head of Real Assets Sustainable Investing, BlackRock

1. PMA, July 2021, Initial Thoughts on Potential Impact of Net Zero Carbon on Property Returns.
2. ECIU March 2021, Taking Stock: A Global Assessment of Net Zero Targets.
3. www.gov.uk Net Zero Strategy: Build Back Greener October 2021

Industry focus



BlackRock and NatWest Group

As a large institutional owner of UK property, and one of the largest UK commercial lending banks, **BlackRock and NatWest are both acutely aware of the magnitude of the decarbonisation task facing the real estate industry.** We also recognise that net zero carbon simply cannot be achieved by new development alone, and that the refurbishment and retrofitting of existing buildings is a critical component of the current and future supply of net zero carbon buildings.

The reality of the decarbonisation imperative, and the urgency to act now, will only be effective through a collaborative approach by all stakeholders within the sector as we seek to support the transition to net zero carbon. We believe that the UK government, lenders, landlords, occupiers, developers, valuers and consultants will all need to work together in order for their actions to be effective, magnifying their collective influence and impact.

We consider there to be **three major areas of focus** as we continue to embark on the journey to net zero for UK's commercial real estate:



Emission reductions

With evolving regulation, and a greater understanding of what net zero alignment practically means for the real estate sector, we believe **that the focus should be advancing and accelerating collective action to reduce the carbon and energy footprints of the UK's commercial real estate.**

Landlords and asset managers, such as BlackRock, can play a key role in accelerating the transition. For example, **by scaling-up the sourcing of renewable energy across our portfolios and financing the installation of on-site renewables**, such as rooftop solar arrays. We also have a role to play in scrutinising every procurement decision, to ensure capital expenditure is used efficiently to reduce energy wastage, improve energy performance and eliminate operational greenhouse gas emissions. **Opportunities to reduce carbon should ultimately be integrated into every investment decision** and asset management plan.

Lenders also have a critical role to play. **NatWest is supporting customers to access a range of ESG and Green debt products** that encourage and incentivise actions towards net zero carbon. In addition, they are exploring the potential to **more directly support net zero development and how to drive retrofit activity**, and have started to connect lending criteria to the energy efficiency of the buildings being financed.



Data collection

Understanding the carbon footprint of the commercial real estate sector is essential if we are to move to a net zero world. As an industry we need to understand the impact of both our existing exposures and future activity at a whole-building level, and **fully embrace net zero certification.**

As the accuracy and availability of climatic data and insights continues to grow, so too do the opportunities to leverage such insights to inform investment, asset management and lending decisions. At **BlackRock, we are using proprietary technology tools** to help us understand the physical climate risks across our portfolios, however transition risk is equally as important to real estate investors. Our efforts, like so many in our industry, are **focussed on collating accurate and complete energy data across our portfolios**, and this can only be effective when done in partnership with our occupiers. The global challenges in measuring embodied carbon will also require **industry-wide collaboration**, the agreement of standardised measurement and reporting methodologies and embracing **circular economy principles**.

For lenders, **the focus is on understanding the carbon footprint of both the existing lending portfolio and new lending origination activities.** By enhancing data capture, modelling and reporting, we are better able to understand the impact of our activities and are **better placed to work alongside our customers and other industry stakeholders to support the journey to net zero.**



Collaborative approach

There are many laudable initiatives underway in the real estate industry, however the significant task of decarbonisation is not something any single stakeholder can do in isolation. **Decarbonising the commercial real estate sector will require a collaborative approach** across all stakeholders, from regulators, to asset owners, occupiers and lenders.

With **governments setting the tone through regulations** both at a national level around power generation, and at the real estate sector level around energy performance, landlords and our occupiers, need to increasingly **partner together to decrease the footprints of their buildings.**

This can be done by addressing those challenges such as data sharing, agreement on works, maintenance, upgrades and retrofitting. **Whereas lenders will have to continue to amplify their support for the financing of such transition initiatives.**

It is also important to recognize **the role of real estate in the decarbonisation of the wider global economy.** As the real estate industry becomes more efficient, demanding less energy, more electricity can be directed towards the hard-to-abate sectors, comprising large quantities of materials such as steel and cement.

As a result, coordinated action across multiple stakeholders, levels and geographies is critical to success.

Risk warnings

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