



**CAPITAL &  
REGIONAL**

Our pathway to

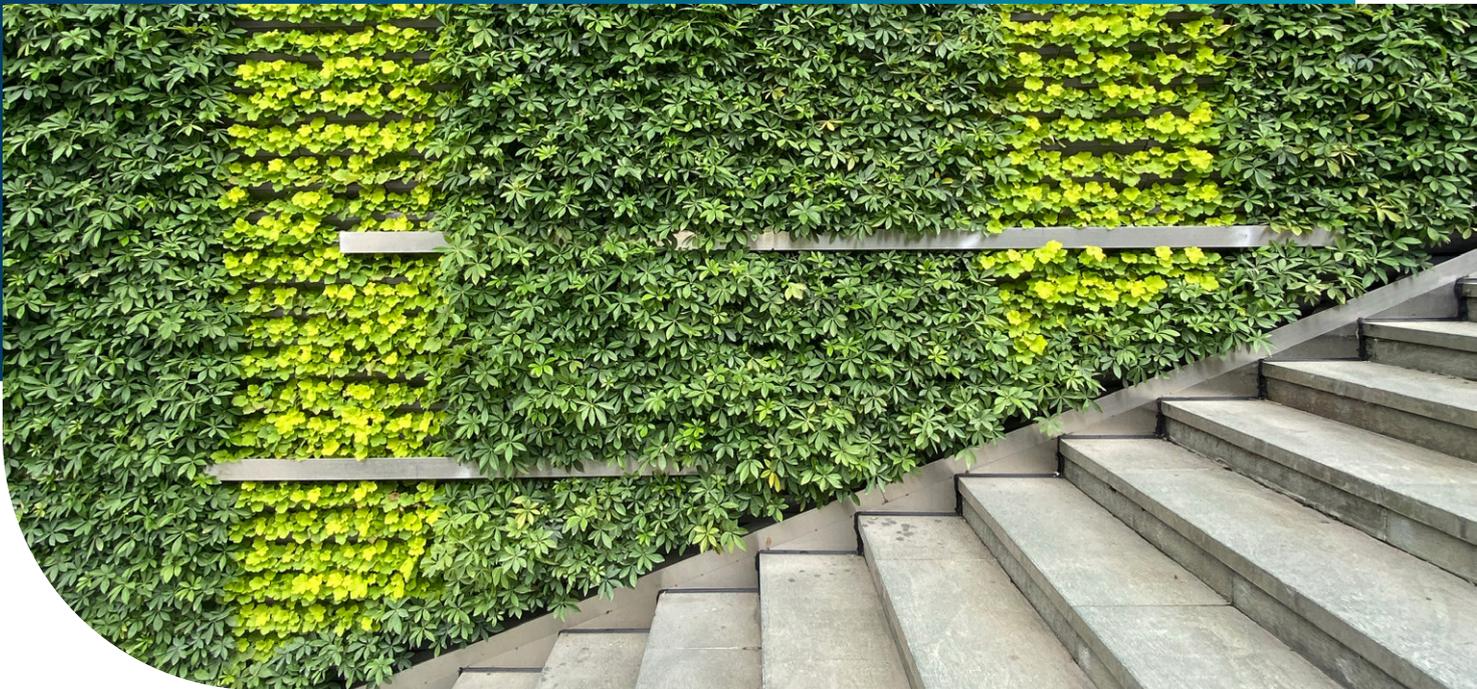
# Net Zero Carbon

**Shopping Centres**

August 2022

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# Foreword

The path to net zero represents a substantial opportunity to restructure past priorities and rebuild a future that delivers value for our communities, economy, and the planet.

The consequences of climate change, from the threats to human life to the wide-scale disruption to supply chains, are some of the greatest challenges of our time, and the real estate sector has a defining role to play in building resilience into infrastructure and communities and limiting global temperature rise to 1.5°C.

As a large employer and provider of essential services and community infrastructure across the UK, we have a responsibility to our stakeholders to ensure we build and operate a shopping centre portfolio that minimises its negative impact and contributes positively to the people and environment around it. For our employees, this means providing them with the skills and tools to excel within a green economy and engaging occupiers to develop collaborative solutions that provide mutual benefits and support their own net zero commitments.

Whilst we are in the early stages of our journey, we have made significant strides at Capital & Regional to embed environmental, social and governance (ESG) principles throughout our business to drive our financial performance whilst addressing the expectations of our stakeholders.

The creation of our net zero carbon pathway is an important milestone on our journey and defines the actions and priorities we need to put in place to stay true to our commitment to our communities, employees and the long-term resilience and success of our business.



**Lawrence Hutchings**  
Chief Executive

In this report, we outline the scope of our net zero carbon commitment and our approach to achieve net zero carbon by 2040, aligned with the Better Building Partnership's (BBP) Climate Commitment. We all have a role to play in creating a net zero carbon future and we look forward to sharing our progress with you.

We have a responsibility to our stakeholders to ensure we build and operate a shopping centre portfolio that minimises its negative impact and contributes positively to the people and environment around it.



# Executive Summary

Capital & Regional has committed to achieve net zero carbon by **2040**.

Our commitment covers embodied carbon associated with refurbishments and fit-outs and operational carbon from landlord and occupier energy consumption, along with other measured emission sources.

➔ Please see **Scope & Boundaries** on **page 18** for more information on the emissions sources included within our pathway.

We are a UK-focused retail property REIT, specialising in community shopping centres. Our centres form a critical part of the local infrastructure and create positive socio-economic and environmental impact on their respective local communities. We therefore see our net zero carbon pathway as a means to uphold our commitment to our communities and address one of the greatest challenges of our time, all the while building resilience against physical and transition climate risks and ensuring long-term asset value.

The development of our net zero carbon pathway builds on the significant strides we have taken to embed sustainability principles within our business strategy and into every part of our operations. Our pathway provides a roadmap for our Shopping Centres, in line with the UK Green Building Council's (UKGBC) definition of Net Zero and the Better Building Partnership's (BBP) Climate Commitment, quantifying and prioritising the necessary emission reductions to our target year and beyond. The carbon pathway is supported with a clear and actionable implementation plan, mapped against all aspects of the property lifecycle in the short, medium, and long term.

The steps we have taken to develop our Pathway to Net Zero Carbon are outlined in this report and focus on the following:



**Understanding our baseline portfolio emissions**



**Developing projections to 2040, our net zero target year**



**Identifying emissions reduction opportunities and targets**



**Presenting a net zero carbon action plan**



# Defining Net Zero Carbon

At Capital & Regional we recognise our role as a responsible business in driving a just and fair transition. Over the past years we have been working hard to firmly embed sustainability into our business and engage our people, guests, occupiers and suppliers along the way.

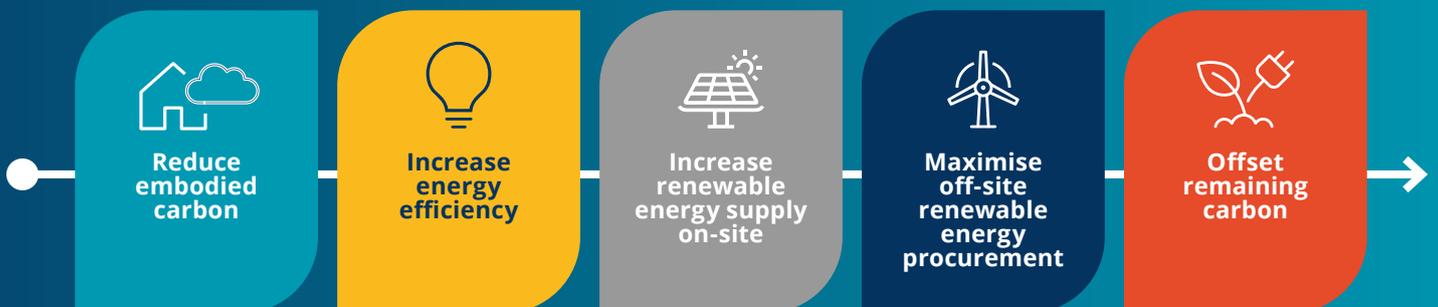
We are at the start of our journey, but we are not short of ambitious goals. Developing a net zero carbon pathway, aligned with industry best practice, has been a vital element of our long-term ambition.

In setting a pathway to achieve net zero carbon, in line with the UKGBC best practice recommendations and the BBP's Climate Commitment, we are quantifying and prioritising the necessary emission reductions out to 2040 – our net zero carbon target year – and beyond, whilst demonstrating transparency and credibility.

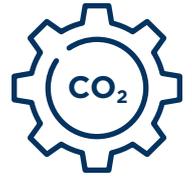
The scope of our pathway, detailed within this report, covers our shopping centres, focussing on how the transition to net zero carbon can align to best practice industry targets, such as the Carbon Risk Real Estate Monitor (CRREM) and forthcoming UK Net Zero Carbon

Buildings Standard. Our pathway outlines a roadmap of short, medium, and long-term actions and priorities and provides a clear and actionable implementation plan, mapped against our operations.

We have adopted a best practice approach, aligned with the BBP definition of net zero carbon as well as the widely accepted hierarchy of actions in the real estate sector, endorsed by the World Green Building Council (WorldGBC). By following this approach, we first understood the emissions of our shopping centres in our baseline year, then projected these emissions out to 2040, and finally, identified what targeted reductions we could and should make to reduce emissions to align with net zero. We aim to exhaust all steps along the net zero hierarchy before turning to carbon offsetting.



# Understanding Net Zero Carbon



Net zero carbon means that a company removes as much carbon as it emits. It is crucial to consider net zero carbon with a 'whole life carbon' lens and therefore, account for both embodied carbon from construction activities and operational carbon from the running of a building. The WorldGBC has defined the following:



## **Net zero operational carbon**

When the amount of carbon dioxide emissions associated with building operations on an annual basis is reduced (highly energy efficient and fully powered from on-site and/or off-site renewable energy sources) to a level that is consistent with reaching net zero at the global or sector level in 1.5°C pathways. Any residual emissions that remain unfeasible to eliminate should be neutralised through carbon removals.



## **Net zero whole life carbon**

When, in addition to net zero operational carbon, upfront carbon and other embodied carbon across the building lifecycle is reduced to a level that is consistent with reaching net zero at the global sector level in 1.5°C pathways. Any residual emissions that remain unfeasible to eliminate should be neutralised through carbon removals.



**Sara Jennings**  
Director of Operations  
& Guest Experience

Developing our pathway to net zero carbon is a significant milestone for Capital & Regional and one I am personally incredibly proud of. Sustainability is a core value to our business, and we have been working hard to galvanise our teams to fully embed sustainability into everything we do. Setting a commitment to achieve net zero by 2040 for our shopping centres will dramatically change how we operate, so we need everyone on board. I can already see a growing enthusiasm as we embark on this stage of our sustainability journey.



# Pathway to Net Zero Carbon

Our pathway to net zero represents a significant opportunity for Capital & Regional, our assets and the teams on the ground every day, who will play a critical role in driving our corporate ambition to reach net zero by **2040**.

	 <b>Embodied Carbon</b>	 <b>Operational Carbon</b>	 <b>On-site Generation</b>
Targets	<p>Use measured embodied carbon findings to establish embodied carbon targets</p>	<p>Monitor and decrease the energy intensity of assets in alignment with best practice asset-specific operational energy performance targets identified through net zero carbon audit assessments, and CRREM 1.5°C Global Pathways</p>	<p>Maximise energy generation from on-site renewables on appropriate assets, reducing dependence on energy procurement from the UK national grid</p>
Key Actions	<ul style="list-style-type: none"> <li><span style="border: 1px solid black; padding: 2px;">ST</span> Define and introduce sustainable refurbishment guidelines for major and minor refurbishments</li> <li><span style="border: 1px solid black; padding: 2px;">MT</span> Aim to conduct whole life carbon and climate risk assessments for all refurbishments and fit-outs</li> </ul>	<ul style="list-style-type: none"> <li><span style="border: 1px solid black; padding: 2px;">ST</span> Create an enhanced occupier engagement strategy focused on improving collaboration and training on sustainability, and including liaising closely with key occupiers to understand their energy reduction plans and investigate possible joint initiatives</li> <li><span style="border: 1px solid black; padding: 2px;">ST</span> Embed net zero criteria into the pre acquisition process, including the consideration of the embodied carbon required to achieve net zero carbon operational performance</li> <li><span style="border: 1px solid black; padding: 2px;">MT</span> Improve data accuracy and coverage by continuing to progress towards net zero carbon/energy audits for priority assets and scaling up coverage over time</li> <li><span style="border: 1px solid black; padding: 2px;">MT</span> Integrate findings of asset level audits into existing multi-year carbon reduction plans for each asset, and extend plans to incorporate asset level climate risk information</li> <li><span style="border: 1px solid black; padding: 2px;">MT</span> Scale-up the use of green lease clauses to new leases and renewals focused on collaboration and sustainability</li> </ul>	<ul style="list-style-type: none"> <li><span style="border: 1px solid black; padding: 2px;">ST</span> Conduct renewable feasibility studies for assets to estimate renewable power generation potential before implementing on-site renewables at the most cost-effective sites</li> </ul>

ST Short-term goal

MT Medium-term goal

## Operations

Decrease the energy use intensity of assets to levels in line with 1.5°C aligned real estate pathways, prioritising landlord spaces at major refurbishment events and occupier spaces at lease expiry/renewal

## Refurbishments

Establish embodied carbon intensity targets (tCO<sub>2</sub>e/m<sup>2</sup> GIA) for major refurbishments, minor developments and fit-outs

## Acquisitions

Ensure all new assets perform in alignment with net zero carbon operational performance levels on acquisition or can quickly be brought up to the targeted performance levels



### Renewable Energy Procurement

Continue to meet energy demand through the procurement of renewable energy and aim to maximise the procurement of energy that meets the 'high-quality' renewable energy criteria as per the UKGBC's Renewable Energy Procurement guidance, prioritising suppliers that generate additional capacity in the grid

- MT** Work closely with occupiers to increase high-quality renewable energy procurement for the leased areas
- MT** Identify high-quality renewable energy procurement options, prioritising suppliers that generate additional capacity in the grid



### Offsetting

Offset remaining operational and embodied carbon from the target year onwards through an accredited offset scheme, prioritising the procurement of high-quality offsets in line with the Oxford Offsetting Principles

- MT** Develop a carbon offsetting strategy, considering an internal carbon price and transition fund



### Third-party Verification

Continue the alignment process with BBP requirements, firstly by formalising the BBP Climate Commitment and annually reporting progress against our net zero carbon pathway



# Setting a Baseline & Trajectory

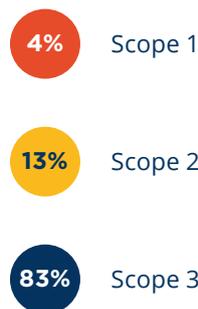
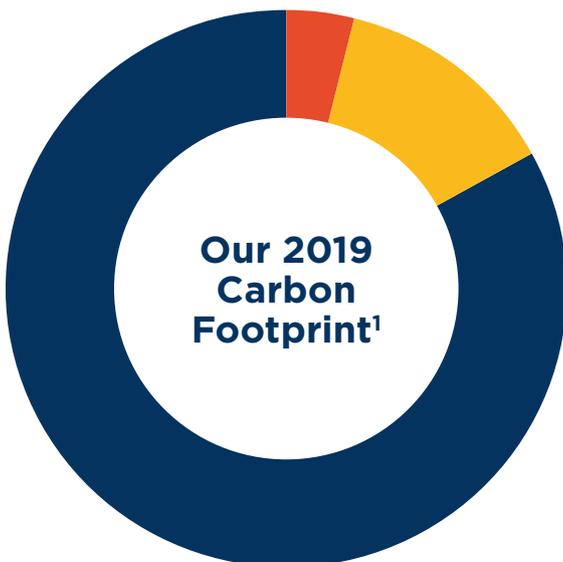
To understand our impact and develop a trajectory of how our shopping centre portfolio will perform from a net zero carbon and energy perspective over the period to 2040, we have set a carbon baseline in the most recent, representative year: 2019.

The baseline and projection to 2040 represent a business-as-usual scenario, including assumptions about growth plans, strategic shifts, grid decarbonisation, operational carbon at current energy usage intensity rates and embodied carbon based on current intensity rates.

Our net zero transition plans are aligned with CRREM 1.5°C pathways and Energy use intensity (EUI) targets for the 'Retail, Shopping Centre' asset type.

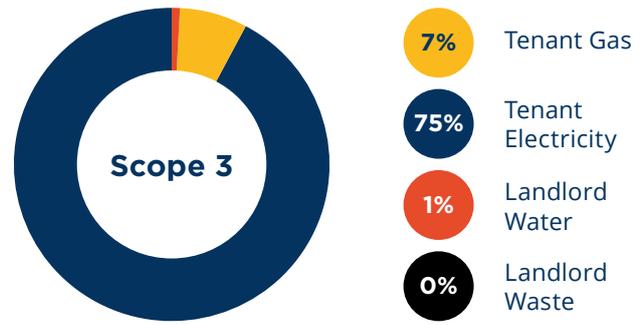
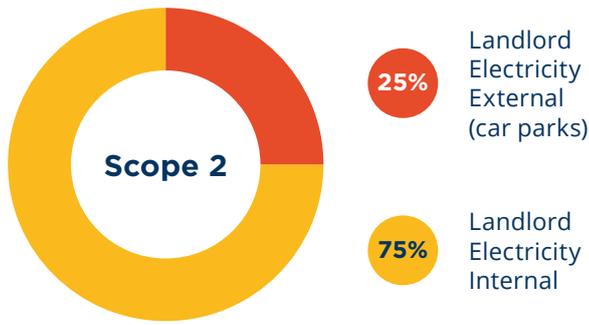
Occupier related emissions represent the largest proportion of our carbon footprint, and therefore tackling these emissions is a significant element of our net zero journey.

Occupier engagement has increasingly become a top corporate priority for real estate asset managers, and it's crucial for us to be able to measure and monitor these emissions that we don't have direct control over. To this end, our net zero carbon trajectory reflects projected landlord and occupier emissions. So that we can better understand their impact over the next years, we have rolled-out an occupier engagement plan focused on net zero carbon audits, sustainability training and upskilling for our teams and occupiers as well as ongoing engagement initiatives.



<sup>1</sup> The carbon footprinting of Scope 2 and Scope 3 (electricity) emissions is based on the location-based approach. Tenant and landlord energy consumption figures are informed by net zero carbon audits and desktop assessments.

<sup>2</sup> The emissions sources included in the carbon footprinting are detailed in the **Scope and Boundaries** section on **page 18**.



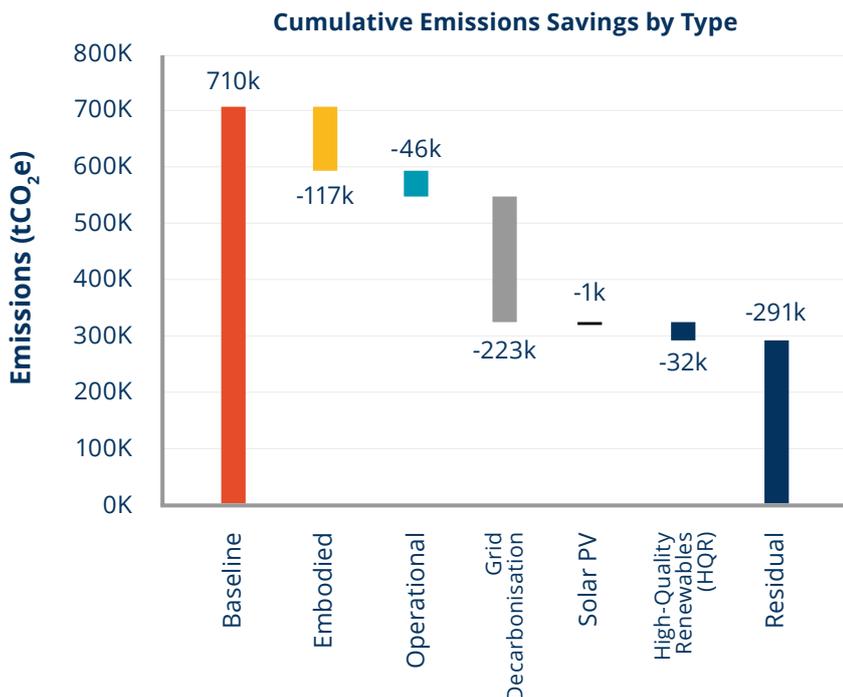
## Emission Breakdown (tCO<sub>2</sub>e)

	Scope 1: Landlord Gas	Scope 1: Landlord Refrigerants	Scope 2: Landlord Electricity (Internal)	Scope 2: Landlord Electricity (External)	Scope 3: Tenant Gas	Scope 3: Tenant Electricity	Scope 3: Landlord Water	Scope 3: Landlord Waste	Total: (tCO <sub>2</sub> e)
Shopping Centres	838	4	2,381	806	1,401	17,937	83	73	23,523

## Projected Carbon Savings

The chart below reflects our projected baseline emissions to understand our impact over time and the cumulative emission savings from 2019-2040 that will be required to take place to reach our net zero commitment. The emissions sources include those that are most material i.e., the energy consumption related to occupier and landlord internal areas as well as the embodied carbon associated with refurbishments and fit-outs.

In line with the net zero carbon hierarchy, we will prioritise carbon reduction measures before looking towards offsetting residual carbon from our target year onwards. Cumulative emissions and expected savings related to our most material emission sources of embodied carbon and operational internal energy use are shown above from 2019 to 2040. We have estimated that in 2040, our net zero carbon target year, we will need to offset circa 11,000 tCO<sub>2</sub>e per year.



### Net Zero Carbon Asset Audits

Over the course of 2021 and 2022, we conducted a detailed assessment of our shopping centre portfolio through net zero carbon asset audits. This allowed us to identify the retrofit measures, including MEP and fabric upgrades, necessary to achieve net zero carbon across our shopping centres portfolio. Additionally, the audits provided cost estimates for the proposed measures, which will be critical to inform our decision-making and planning.

The audit process involved active engagement with shopping centre occupiers, from large corporates to smaller independent occupiers, through surveys and training. Taking their views into account will be key in creating an actionable pathway whilst engaging our partners along the way. This has been an important step towards successful occupier engagement across our assets.

# Net Zero Carbon Approach



## Reducing Embodied Carbon

Embodied carbon refers to the emissions generated from producing a built asset, from extraction, manufacture/processing, transportation and assembly of every product and element in an asset. It also encompasses the emissions associated with the maintenance, replacement, deconstruction, disposal and end-of-life aspects of the materials and systems that make up the asset.

With embodied carbon from the construction and refurbishment of buildings currently totalling 20% of built environment emissions, as operational emissions decrease, embodied carbon is projected to form an even greater share<sup>3</sup>. In the absence of regulation, it's even more critical that Capital & Regional measure and manage these emissions to build resilience against future legislation and reach net zero.

We have developed an embodied carbon pathway, which includes estimated embodied carbon emissions from refurbishments and fit-out activity for a baseline and a net zero carbon projection to the 2040 target year, and plan to establish a process for tracking the carbon associated with the procurement of M&E goods and services. The net zero carbon audits carried out were critical in understanding the scope, measures and interventions required to achieve EUI target levels.

As our business grows and our portfolio increases, developing sustainable guidelines for refurbishments and fit-out guides, taking a whole life carbon approach and undertaking climate risk assessments for all refurbishments and fit-outs will be critical as new assets entering our portfolio can significantly increase the embodied carbon emissions associated with occupier spaces.

### Our Target



- Use measured embodied carbon findings to establish embodied carbon targets





**James Ryman**  
Investment Director

The opportunities arising from understanding the wider impact of our assets before the doors are open and the lights are switched on can be incredibly valuable. It will mean doing things differently, redefining and reassessing our due diligence and making decisions that consider more factors and scenarios, like climate risk assessments. But we know we can't operate in a business-as-usual way anymore. Most importantly, we know that sustainability is not just good for the planet, it's good for business too.

# Net Zero Carbon Approach



## Operational Carbon

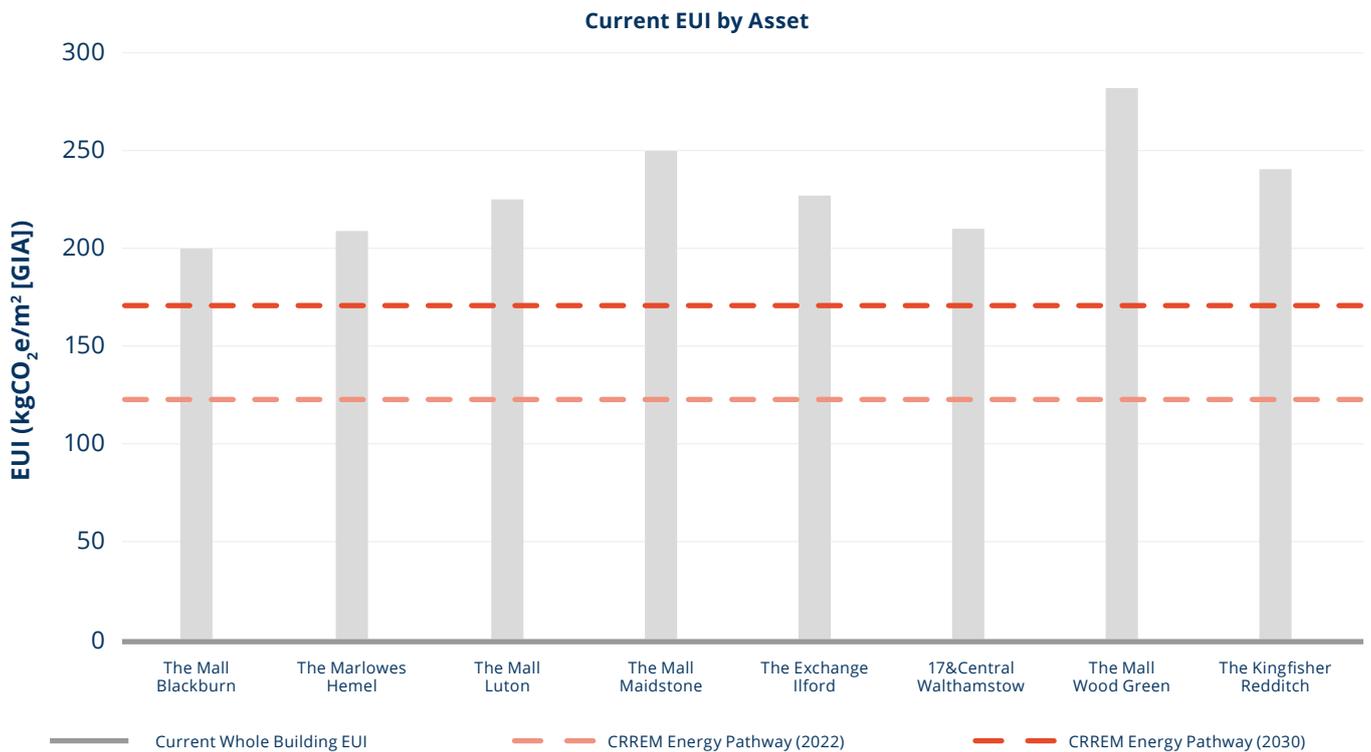
The majority of our emissions are attributed to the energy consumption related to tenant occupied spaces and landlord common areas. Therefore, increasing the pace and impact of energy efficiency measures, as well as maximising the use of renewable energy sources, will be critical towards achieving our net zero carbon commitment.

We are proud of the significant strides in driving efficiencies across our shopping centres portfolio and will continue to actively review the capital investment plan for each centre, including assessing energy efficiency measures and renewable energy opportunities, water recycling and waste reduction. At the same time, we will continue to spearhead community green initiatives and ensure each shopping centre understands the requirements to reach net zero by 2040. For example, Capital & Regional are in the process of developing an electric vehicle (EV) strategy that considers our impact beyond our direct operations to those created by our visitors through the way they visit our assets. With EV charging capacity available at our shopping centres, we hope to support our local communities in transitioning away from carbon intensive transportation.

Across all our assets, our electricity is already sourced from 100% renewable sources, using wind and solar power. However, the transition to gas has proved slower and more challenging, particularly considering our Food & Beverage (F&B) occupiers and their higher reliance on gas sources. We will explore and estimate the potential to increase on-site renewable energy, mostly through solar PV panels on the rooftop and car park areas of our shopping centres.

**CRREM** is a real estate framework for science-based decarbonisation pathways aligned with the Paris Agreement and SBTi's Sectoral Decarbonisation approach.





We estimate our operational carbon savings will be mostly driven by energy efficiency improvements, on-site renewable energy (solar PV), and off-site renewable energy procurement (grid decarbonisation and high-quality renewable energy procurement). These savings have also been informed by the reduction in energy usage estimated via our net zero carbon audits. The decarbonisation of the national grid is expected to contribute significantly to the overall reduction and it would be included in a business-as-usual scenario.

The other highest saving contributions are expected to arise through reductions in high-quality renewable energy procurement and energy efficiency respectively. Importantly, there are substantial reductions in carbon attributable to energy efficiency measures, reflecting the prioritisation of reducing energy use before considering alternative energy procurement options and offsetting.

## Our Targets



- Monitor and decrease the energy intensity of assets in alignment with best practice asset-specific operational energy performance targets identified through net zero carbon audit assessments, and CRREM 1.5°C Global Pathways
- Maximise energy generation from on-site renewables on appropriate assets, reducing dependence on energy procurement from the UK national grid
- Continue to meet energy demand through the procurement of renewable energy and aim to maximise the procurement of energy that meets the HQR criteria as per the UKGBC's Renewable Energy Procurement guidance, prioritising suppliers that generate additional capacity in the grid

# Net Zero Carbon Approach



## Carbon Offsetting

Even when undertaking the maximum efforts to reduce emissions, we expect there will be a proportion of unavoidable emissions for which carbon offsets may need to be used.

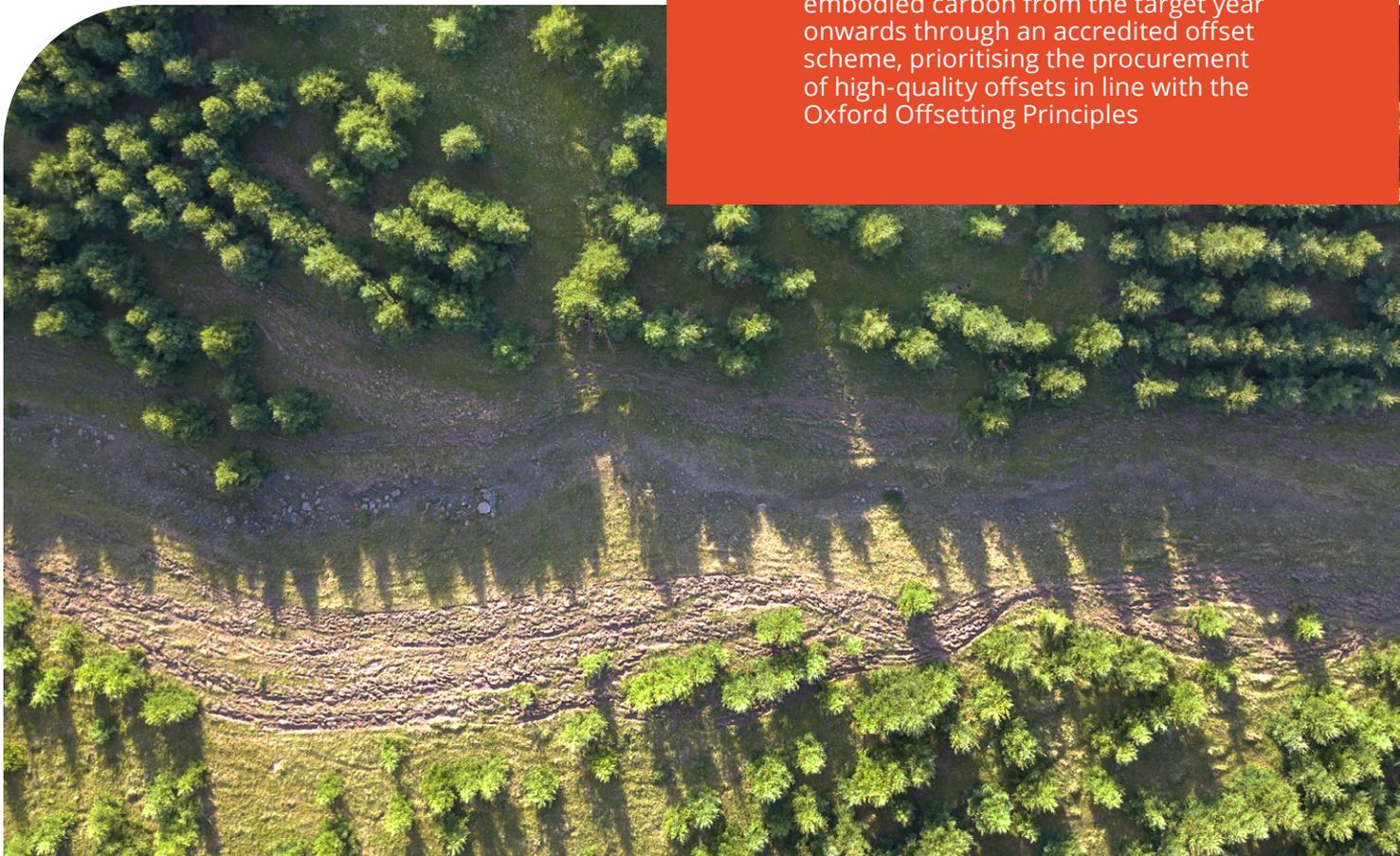
This will require a careful prioritisation and exhaustion of all carbon reduction efforts before moving to high-quality offsets as a final resort.

High-quality offsets will then be considered from our target year of 2040 onwards.

### Our Target



- Offset remaining operational and embodied carbon from the target year onwards through an accredited offset scheme, prioritising the procurement of high-quality offsets in line with the Oxford Offsetting Principles



# Occupier Engagement



A significant proportion of our carbon footprint is derived from occupier-related emissions, which we have limited control over. This means that occupier engagement must remain a key priority for Capital & Regional.



**Lawrence Hutchings**  
Chief Executive

Green leases have the potential to fundamentally alter how we do business. We're still in a post pandemic recovery and therefore attracting and retaining occupiers is a key business priority. But so is doing business in a sustainable way - one that will keep us on track and lead us to net zero carbon.

We have been taking steps to actively engage with our occupiers, and the targets and milestones outlined in our net zero pathway demonstrate our strong commitment to collaborate and support our occupiers in their own net zero transition.

As a first step we wanted to understand the sustainability baseline of our occupiers and conducted a detailed occupier survey covering all occupiers across our shopping centre portfolio. The aim was two-fold: collecting asset and energy information across Capital & Regional's shopping centres and assessing their sustainability commitments. We were pleased with the positive response and engagement.

We have also conducted in-depth net zero carbon audits across our shopping centres – these allowed us to actively engage with the asset teams and some occupiers and assess specific measures and interventions required to achieve our net zero carbon commitment.

As a following step, we are upskilling all our teams on sustainability, which will allow them to feel empowered and confident to drive change within their day-to-day role. We also have plans to deliver tailored sustainability training to our occupiers covering energy, carbon, resource use as well as health and wellbeing with a specific focus on the various areas across our operations including asset management, leasing, refurbishments and fit-outs and acquisitions. Our aim is to focus on specific and tailored guidance and recommendations for our occupiers. For example, for major refurbishments and fit-outs we are exploring the introduction of guidelines and green leases as well as the improvement of data collection and accuracy.

Our occupier engagement strategy is a long-term approach. We understand the importance of specific initiatives but recognise that 'on the ground' support will be required. That's why we're focusing on sustainability training and will also be exploring opportunities to establish working groups across assets and occupiers to drive knowledge sharing and ultimately, a bigger impact.



# Scope & Boundaries

The scope and boundaries of our Pathway to Net Zero Carbon has been developed in alignment with the framework for Capital & Regional's shopping centres portfolio<sup>4</sup>.

The carbon modelling and trajectory of Capital & Regional's future emissions, in terms of baseline and net zero carbon scenarios, is defined by the most material emission sources for the shopping centre business.

Our pathway specifically considers emissions coming from energy related to internal spaces, excluding emissions sources such as waste and water, and energy consumption related to carparks, to focus on the most material emission sources and to allow a direct comparison against the industry standard for operational performance metrics.



<sup>4</sup> Snozone is excluded from this scope and a separate net zero carbon pathway is being explored.

Business Area	Sub-Area	GHG Protocol Reporting Category	Carbon Scope	Included in Scope
Corporate	Head office energy use	Company facilities	1 & 2	
	Company vehicles	Company vehicles	1	
	Business travel (excluding commuting)	Business travel	3	
	Purchased goods & services	Purchased goods & services	3	
	Operational waste generated	Waste generated in operations	3	
	Operational water use	Purchased goods & services	3	
	Employee commuting	Employee commuting	3	
Direct Real Estate Holdings (including JVs with management control)	Landlord purchased energy (electricity & fuels )	Purchased electricity heat & steam	1, 2 & 3	✓
	Tenant purchased energy (electricity & fuels)	Downstream leased assets	3	✓
	Landlord refrigerants	Purchased goods & services	1	✓
	Tenant refrigerants	Tenant Scope 3	3	
	Landlord purchased water	Purchased goods & services	3	✓
	Tenant purchased water	Tenant Scope 3	3	
	Landlord managed operational waste	Waste generated in operations	3	✓
	Tenant managed operational waste	Tenant Scope 3	3	
	Tenant transport emissions	Tenant Scope 3	3	
	Tenant supply chain emissions	Tenant Scope 3	3	
Landlord purchased capital goods & services (M&E & property management services)	Purchased goods & services	3	✓	
Investments (Indirect Real Estate Holdings, e.g., where investments are managed by a third part such as JVs with no management control or investments in other real estate investment vehicles)	Landlord purchased energy (electricity & fuels)	Purchased electricity heat & steam	1, 2 & 3	NA
	Tenant purchased energy (electricity & fuels)	Downstream leased assets	3	NA
	Landlord refrigerants	Purchased goods & services	1	NA
	Tenant refrigerants	Tenant Scope 3	3	NA
	Landlord purchased water	Purchased goods & services	3	NA
	Tenant purchased water	Tenant Scope 3	3	NA
	Landlord managed operational waste	Waste generated in operations	3	NA
	Tenant managed operational waste	Tenant Scope 3	3	NA
	Tenant transport emissions	Tenant Scope 3	3	NA
	Tenant supply chain emissions	Tenant Scope 3	3	NA
Landlord purchased capital goods & services (M&E & property management services)	Purchased goods & services	3	NA	
Development	New Development	Purchased goods & services	3	NA <sup>5</sup>
	Refurbishments	Purchased goods & services	3	✓
	Fit-out (landlord-controlled)	Purchased goods & services	3	✓
	Fit-out (tenant-controlled)	Tenant Scope 3	3	✓
	End of life	End of life treatment of sold products	3	

<sup>5</sup> Capital & Regional does not build new properties and therefore new development works are not applicable.



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