

# **COLUMBIA THREADNEEDLE INVESTMENTS UK REAL ESTATE**

NET ZERO STRATEGY AND PATHWAY | AUGUST 2021



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# INTRODUCTION

As a real estate owner and investor, managing 16 UK Real Estate Funds with a value of around £7.2 billion<sup>1</sup>, we are aware of the role we must play in reducing the impact of our portfolio on the environment – on behalf of ourselves, our investors and stakeholders. We are committed to addressing the challenges that such a large and diverse portfolio presents and to ensuring it is always managed in the most responsible way, setting targets aligned to best practice rather than “business as usual”. As an organisation committed to investing responsibly, we have pledged to meet the challenge of decarbonising our portfolio by 2050.

To achieve this, we are not approaching the challenge alone. We have created a framework under which we are engaging with our investors, occupiers, property managers, environmental advisors and our supply chain. Together we will ensure that we have the right skills, effective partnerships and communication as we set the clear targets, plans and procedures that will allow us to fulfil our ambitions.

We are committed to a responsible investment approach that creates sustainable long-term value and recognise the importance of achieving net zero for our investors and occupiers. We strive to be responsible stewards of our clients’ assets within a framework of good governance and transparency. We promote Environmental, Social and Governance (ESG) and sustainability best practice across the full range of the real estate funds that we manage. This approach underpins our primary aim: to deliver strong investment returns by enhancing the underlying real estate assets, making them better places to work for our occupiers while reducing energy consumption, carbon emissions and running costs. These measurable goals are delivered as property-level interventions tailored to each building with the expectation of minimising void periods and having a positive impact on rental income, capital values and tenant satisfaction.

*"As a substantial investor in UK Real Estate, Columbia Threadneedle is committed to managing the portfolio toward carbon neutrality. We are making the changes required, and I welcome this clear Strategy and Pathway toward net zero by 2050."*

**Nick Ring, Chief Executive Officer, EMEA**

We will engage key stakeholders to gain their support, by clearly articulating the connections between sustainability and value creation, as both investors and occupiers can expect to benefit from the environmental, social and financial value delivered.

Our approach also guards against transitional risks, as regulations governing the real estate sector continue to intensify as we move towards a low-carbon economy.

The following Strategy and Pathway, has been developed in line with the Better Buildings Partnership’s Net Zero Carbon Pathway Framework<sup>2</sup>. It provides the overarching scope of our commitment to a net zero target of 2050 for our UK Real Estate portfolio, and will be supported by fund-level frameworks providing individual targets, commitments and pathways for each of our funds. It outlines our commitment and approach – in collaboration with our clients, tenants and property management partners – playing our role in addressing the urgent issue of climate change.

## Joseph Vullo

Head of UK Real Estate  
Columbia Threadneedle Investments

<sup>1</sup>As at 30 June 2021.

<sup>2</sup>BBP Net Zero Carbon Pathway dated October 2020. [www.betterbuildingspartnership.co.uk](http://www.betterbuildingspartnership.co.uk)

# WHAT IS NET ZERO?

Climate change is now considered the world's most significant long-term challenge and the biggest global risk to society. As a consequence, urgent action is required both from a moral and an economic point of view. In 2015, the Paris Agreement set out a global undertaking to limit global warming to 1.5°C above pre-industrial levels and to be net zero carbon by 2050. In response, the UK set out its own legislation to support this "Paris-aligned" pathway<sup>2</sup>, establishing that if we are to achieve the ambitions of the Paris Climate Agreement, action must be taken at an unprecedented pace and scale. Deep cuts in greenhouse gas emissions from the global economy are required by 2030, with net zero emissions by 2050: this enormous challenge can only be tackled

by governments, businesses and civil society working together to take ambitious action.

The UK Green Buildings Council (UKGBC) estimates that the built environment contributes approximately 40%<sup>1</sup> of the UK's emissions, with operational buildings representing at least 75% of that, meaning our industry has a significant responsibility and contribution to make to the process of decarbonisation. There is however a wide-reaching commitment across a large selection of UK property owners, which, while representing a significant challenge, means there is potential for an aligned and coordinated approach which can make a meaningful difference to the carbon produced.

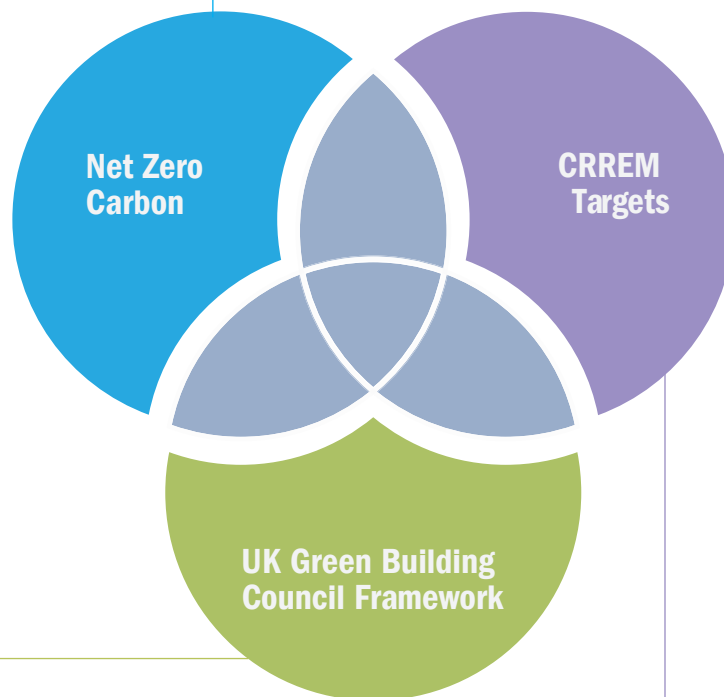


<sup>1</sup>Royal Institution of Chartered Surveyors (RICS) (2019). International Construction Measurement Standards.

<sup>2</sup><https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>

# OUR COMMITMENTS

Columbia Threadneedle Investments' commitment is to achieve net zero carbon across all of the commercial real estate assets managed for our clients by **2050** or sooner. This commitment goes beyond our landlord operations, covering whole building emissions which include our occupiers. Each fund will set interim targets in order to measure and drive our progression towards the ultimate 2050 target.



To achieve net zero, we are committed to the principles defined by the UK Green Building Council (UKGBC) Framework<sup>1</sup>. This means we will use the energy hierarchy framework to drive down the demand of our properties to energy intensity levels that are “Paris proof”. We will increase renewable energy supply and only consider verified offsetting as the final step.

We are using Carbon Risk Real Estate Monitor (CRREM) modelling<sup>2</sup> to define our trajectory to 2050 and reduce the operational carbon and energy intensity of our landlord-controlled emissions (Scope 1 and 2) by 60% (according to UK Green Building Council framework estimates of the total reductions required) against a 2019 base year. CRREM is an EU-funded project to support the understanding of decarbonisation pathways for real estate and will provide us with science-based carbon reduction pathways at building and portfolio level, along with financial risk assessment tools to cost-effectively manage carbon mitigation strategies.

<sup>1</sup><https://www.ukgbc.org/wp-content/uploads/2019/04/Net-Zero-Carbon-Buildings-A-framework-definition.pdf> Net-Zero-Carbon-Buildings-A-framework-definition.pdf (ukgbc.org)

<sup>2</sup>[www.crrem.eu/tool/](http://www.crrem.eu/tool/)

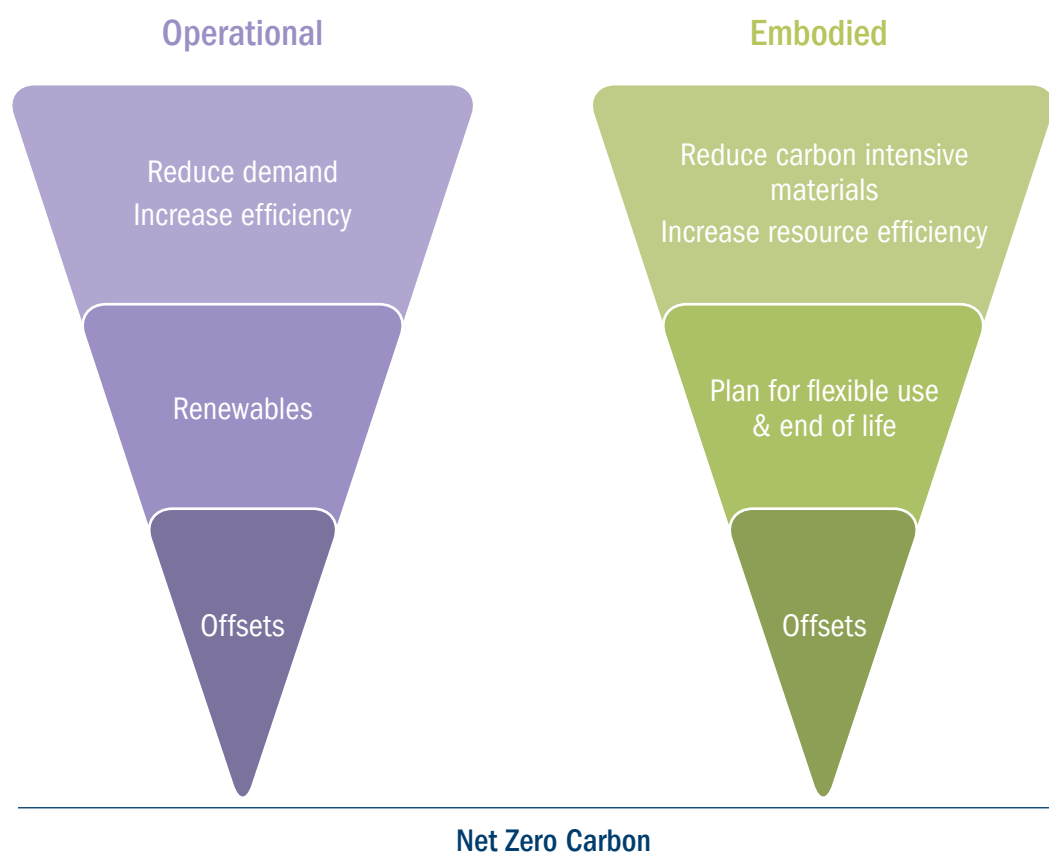
## The UK Green Building Council defines net zero carbon (operational energy) as:

*“When the amount of carbon emissions associated with the building’s operational energy on an annual basis is zero or negative. A net zero carbon building is highly energy efficient and powered from on-site and/or off-site renewable energy sources, with any remaining carbon balance offset.”*

## It defines net zero carbon (construction energy) as:

*“When the amount of carbon emissions associated with the building’s product and construction stages up to practical completion is zero or negative through the use of offsets or the net export of on-site renewable energy.”*

**The hierarchy for action in order to achieve this position is widely agreed to be:**



# OUR PRINCIPLES

We will be following the UKGBC Net Zero hierarchy<sup>1</sup> described above with actions focused on the following areas, set out in order of importance:

## 1

### **Reducing operational energy and carbon emissions**

We will improve the performance of the properties within our portfolios through a combination of energy efficiency, physical improvements through targeted refurbishment, increased control of energy, and by working with our occupiers to assist them in making positive changes.

## 2

### **Investing in on-site renewable technologies and ensuring that grid-purchased energy is renewable wherever possible**

We will look for opportunities for on-site renewable generation which will generally be solar photovoltaic (PV) panels, across all portfolios under management. Where this is not viable or where on-site generation does not meet demand, we will ensure that we procure off-site renewable energy via renewably sourced agreements, with complete transparency in all arrangements.

## 3

### **Reducing embodied carbon of developments and projects**

We will develop an approach to measure the carbon associated with development projects and refurbishments and seek opportunities to reduce carbon through the efficient use of materials, including the use of recycled materials.

## 4

### **Offsetting residual carbon emissions that cannot be eliminated on a short-term basis**

We accept that over time we will need to offset remaining carbon to reach a net zero position, but we will look at the most effective and productive opportunities around offsetting, with routine and transparent reviews. Each of our funds will adopt its own strategy for offsetting.

These processes will be governed by the following criteria:

- Progress will be transparent, publicly reported annually and independently assured.
- We will communicate and collaborate with our stakeholders to ensure the widest reach possible with our actions.
- We will influence and innovate as widely as possible.
- We will consider sustainability throughout the entire real estate life cycle.

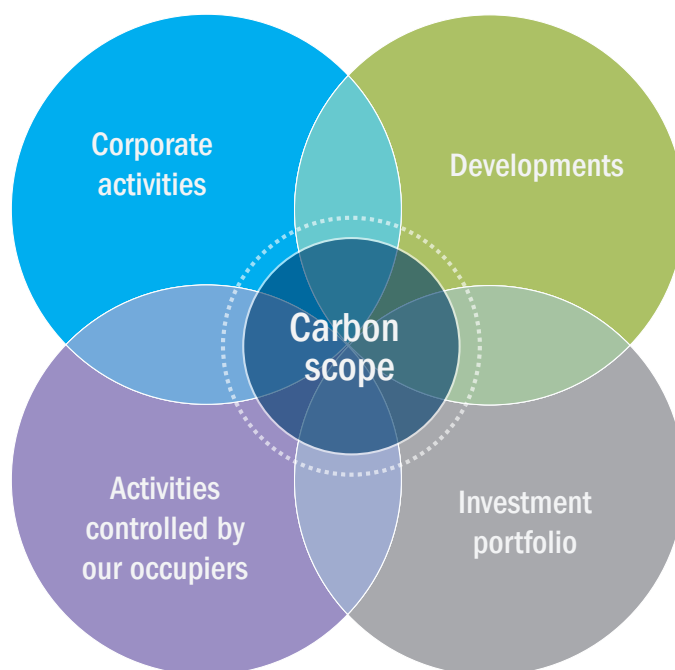
<sup>1</sup>UKGBC Scope of inclusion defined in Framework dated April 2019

# CARBON SCOPE

## The Scope of our net zero commitment will include

All operational energy and water consumption, all waste produced and all travel associated with our business activities

All embodied carbon within developments, refurbishments and the fit-outs that we manage



All landlord-controlled emissions, water and waste consumed and produced through our managed portfolio

All occupier-controlled energy, water and waste consumed and produced through our managed portfolio

| Carbon Emissions Activities   | Corporate activities | Activities controlled and managed by landlords | Activities controlled and managed by occupiers |
|---|----------------------|--|--|
| Energy to operate buildings (electricity, fuels and district heat networks) | ✓                    | ✓  | ✓  |
| Water to operate buildings  | ✓                    | ✓  | ✓  |
| Waste generated in operational activities                                   | ✓                    | ✓  | ✓  |
| Refrigerants  | ✓                    | ✓  |  |
| Purchase of goods and services  |                      | ✓  |  |
| Business travel   | ✓                    |  |  |
| New development work  |                      | ✓  |  |
| Refurbishment work  |                      | ✓  | ✓  |
| Fit out works   | ✓                    | ✓  | ✓  |



A photograph of a rooftop with solar panels on the left and several large logs stacked in the center and right. The background shows a cityscape under a sky with many white and grey clouds. A semi-transparent blue box with white text is overlaid on the bottom half of the image.

## CHALLENGES

In order to decarbonise our UK Real Estate portfolio, our biggest challenge is to fully manage Scope 3 emissions – those that we do not directly control or influence and can only therefore be estimated. To accurately measure emissions across all scopes, rigorous data is fundamental but is currently lacking in the property sector. Our priority is to put in place systems and technology to manage, measure, and report this data – and thereafter drive performance based on an accurate position. This will include, but is not limited to, the use of green leases, robust tenant engagement strategies and the increase of technology to directly capture occupier data.

Where we do directly manage energy (Scope 1 and 2 emissions) we will ensure that electricity is fully renewable and that there is an investment

in technology to move away from grid-procured energy to on-site-produced energy where viable. We are looking to phase out gas in our buildings where possible to do so, and will consider alternative products to natural gas while it is phased out.

We are also aware that our funds are fluid and diverse, all have their own focus and will be on their own pathways. We are therefore committing to an overall net zero target of 2050 and are setting an overarching strategy to achieve this. However each fund will set its own performance targets aligned to its own chosen target date. This will allow each fund to set appropriate pathways, aligned to fund strategy, and ensure that we continue to act in the best long-term interests of our clients.



# OUR DELIVERY FRAMEWORK

## COLUMBIA THREADNEEDLE INVESTMENTS

### REAL ESTATE LEVEL

#### Reduce energy intensity

As we will follow the UKGBC hierarchy, efficiency and active management comes first in our journey to net zero. Reducing energy use and emissions is therefore our first priority and our first target: we aim to reduce the operational carbon and energy intensity of our landlord-controlled emissions (Scope 1 and 2) by 60% (UKGBC estimation of total reductions required) by 2050 or sooner, against a 2019 baseline. Each individual asset will, however, follow its own pathway – aligned to UKGBC and CRREM modelling – to ensure a full net zero position for each fund by 2050 or sooner.

This will be achieved through the following key focus areas:

**Property investment** – When assessing any new property investment on behalf of our funds, our standard due diligence protocol requires all buildings to be comprehensively surveyed from a structural, mechanical and environmental perspective prior to purchase. Consideration is given to a wide range of factors including: energy performance (Energy or Sustainability Audits) and/or minimum energy standards; environmental risks/impact (including flood risk); and areas for potential improvement in sustainability performance. The contents of each report inform the financial modelling undertaken on the property (as appropriate) and form part of the Property Risk Matrix that is given to the Property Management team on completion of each acquisition.

**Asset management** – While the primary objective of the asset management team is to identify opportunities to add value, we look to promote environmental, sustainability and health and wellbeing best practices; as well as energy, water and waste efficiencies at every opportunity. We look to introduce data sharing and co-operation clauses into all new leases to enable the monitoring of operational energy, water and waste consumption, as well as engaging directly with our tenants to procure the data where necessary. Physical interventions and improvements will continue to be required and the timing of those works will

typically be programmed around lease events.

All works are undertaken in accordance with our Refurbishment Guide.

**Property management** – Support our external managing agents in delivering against annual Key Performance Indicators (KPIs) in respect to energy management and data coverage, green energy procurement, Energy Performance Certificates (EPC), water management and data coverage, waste management and data coverage, community involvement, and tenant engagement. To actively manage and continually improve the environmental impact of our buildings, while maintaining tenant satisfaction. We have conducted an extensive programme of sustainability audits for buildings across the portfolio to identify opportunities for improvement through operational and technical improvement measures.

**Refurbishment** – We have developed a Refurbishment Guide to promote the use of high sustainability standards within any new refurbishment. The Guide has been provided to project managers and will be provided to contractors as part of a project brief. It considers the use of energy efficient measures in the design of new lighting, air conditioning and ventilation, space heating and water heating. Automated controls will be incorporated where viable to collect data, manage building systems efficiently and assist with occupant comfort and well-being. Consideration will be given to renewable energy sources such as photovoltaic panels. Refurbishments will seek to minimise environmental and social impacts on site and to maximise the creation of economic opportunities in the local community, where applicable. All projects should incorporate the requirements set out in the Refurbishment Guide, as long as it is economically viable to do so.

#### Increase renewable energy

We must reduce the carbon intensity of the energy consumed within our portfolios and will explore opportunities to install on-site renewable energy systems where viable and practicable to do so. Each fund will adopt its own strategy in this regard.

We are conscious that on-site generation will still leave us with a requirement for some reduced grid energy and as such we will, wherever possible, look to procure “green” Renewable Energy Guarantee Origin-backed electricity wherever viable. Gas will be phased out by ensuring that every refurbishment and opportunity arising to replace gas consumption is taken as written into our minimum standard. As we phase out gas we will continue to review all options for procuring “green” gas.

Given the challenges presented by such a fluid portfolio, we will monitor the viability for Power Purchasing Agreements (PPAs)

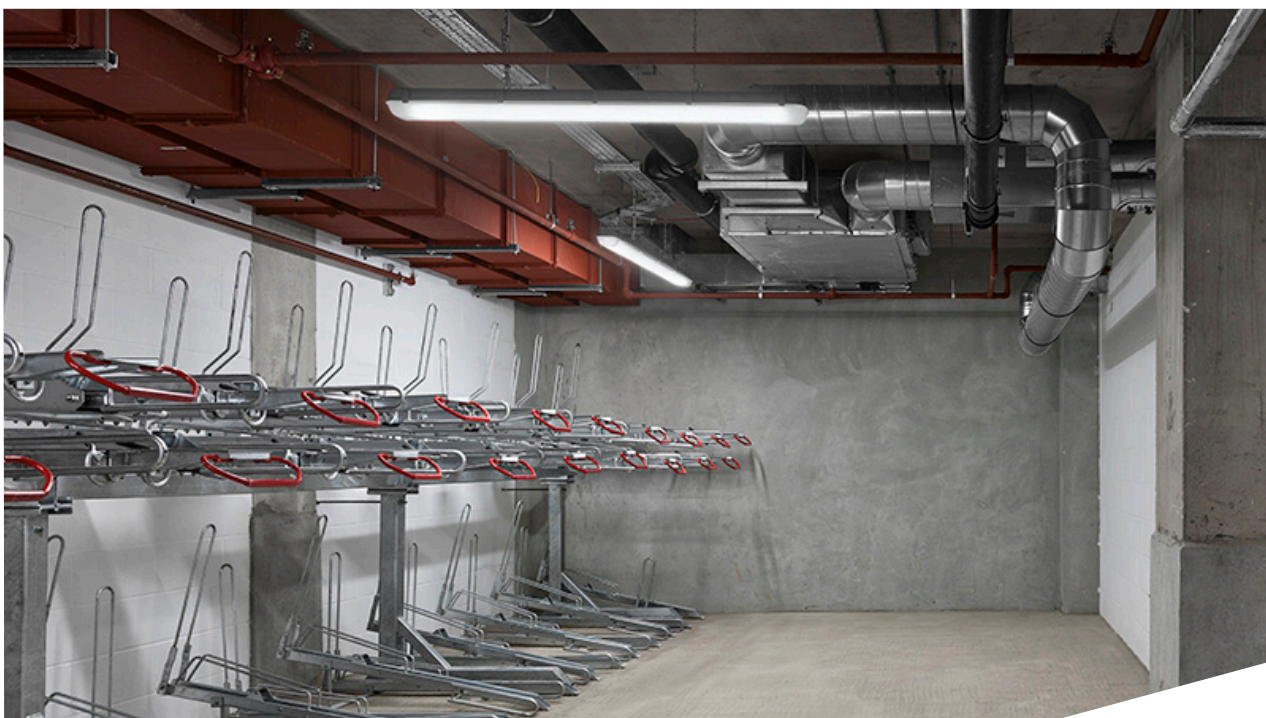
## Reduce embodied carbon

Measuring carbon emissions produced via the supply chain is one of the most significant challenges we have. Embodied carbon is produced through every part of the lifecycle of a development, including the production of materials, transportation, construction, operation and demolition of an asset.

Our overarching aim is to ensure, through upskilling and engagement, that the lifecycle of every asset we manage is extended as far as possible. We will achieve this through pilot projects to establish viable, robust, long-term carbon reduction solutions.

## Offset residual emissions

Offsetting will be the final option we take in our net zero strategy, after exhausting controllable factors. We are, however, conscious that the pathway to net zero will require a phased approach given the complexity of our managed portfolios and that each fund will have different priorities and will need to adopt its own appropriate offsetting strategy.



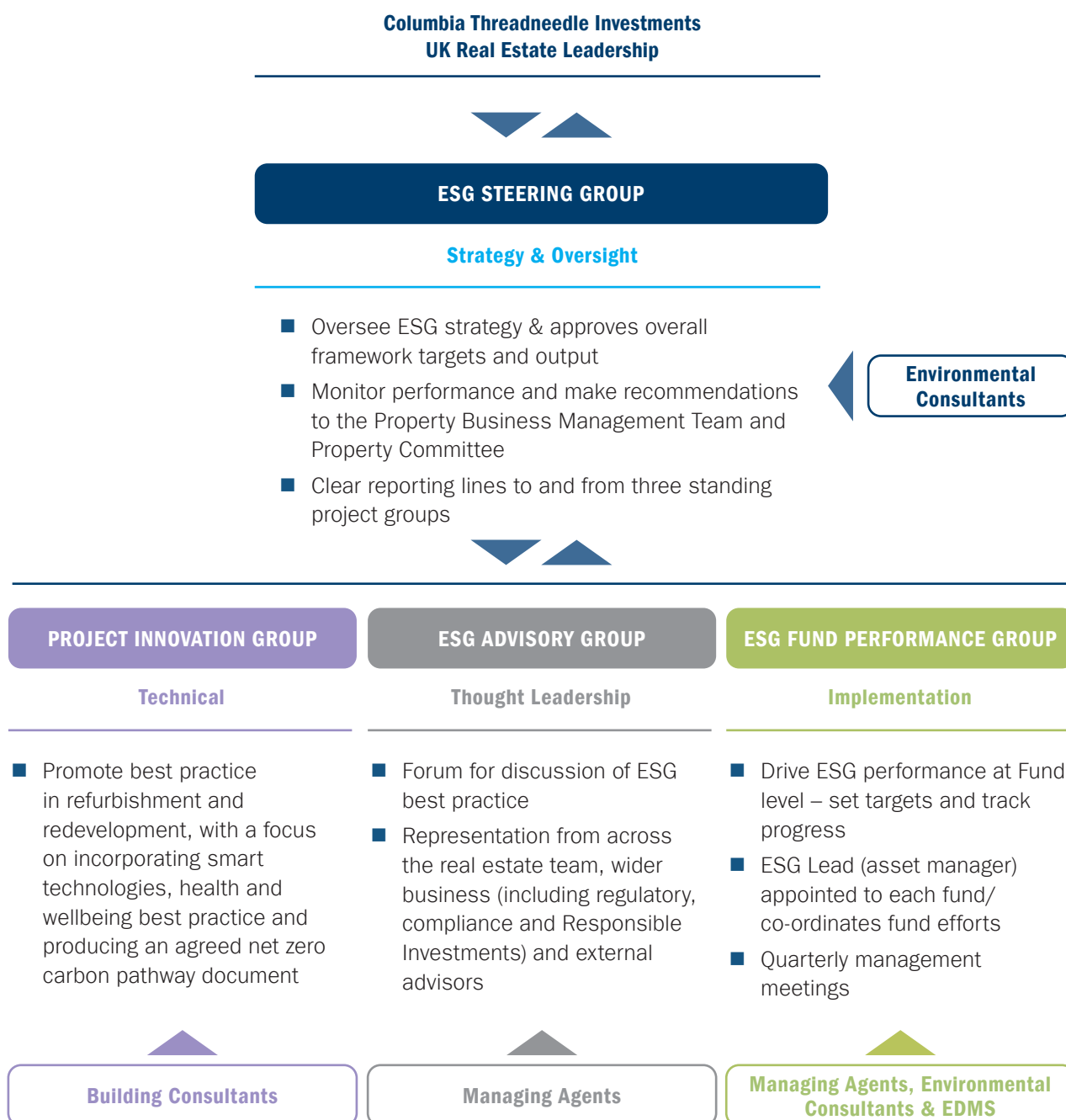
# DELIVERY STRATEGIES AT FUND LEVEL

We will empower each fund to set its own targets; however, these will follow the consistent framework set out below to ensure that strategies, if not all targets, remain aligned.

| Focus Area  | Target  | Strategies  | Metric  | Progress to date  |
|---|---|---|---|---|
| <b>Improved Efficiencies</b>                        | <ul style="list-style-type: none"> <li>■ Reduce energy and carbon across the managed portfolios in line with net zero target (aligned to the 1.5 degree C target) which is estimated to be a 60% reduction against a 2019 baseline</li> <li>■ Align to UKGBC and CRREM modelling</li> </ul> | <ul style="list-style-type: none"> <li>■ Implement energy efficiency measures at every opportunity across the directly managed portfolio</li> <li>■ Engage with occupiers and collect data</li> <li>■ Install smart technologies in directly managed assets</li> <li>■ Support the adoption of technologies and improved metering to better measure energy, water and waste consumption in indirectly managed assets</li> <li>■ Revised Refurbishment Guide to drive efficiencies where viable</li> <li>■ Ensure green lease clauses are consistent and support full collaboration</li> <li>■ Support a procurement strategy to maximise green energy procured by occupiers</li> <li>■ Review and manage water and waste reduction strategies across all directly managed assets</li> </ul> | <ul style="list-style-type: none"> <li>■ Total carbon emissions and energy (tCO<sub>2</sub> and kWh)</li> <li>■ % reduction against a 2019 baseline</li> <li>■ Carbon and Energy intensity (tCO<sub>2</sub>/m<sup>2</sup> and kWh/m<sup>2</sup>)</li> <li>■ % tenant consumption against 2019 baseline</li> </ul> | <ul style="list-style-type: none"> <li>■ CRREM modelling trialled at fund and asset level.</li> <li>■ Smart Technology trials in chosen assets</li> <li>■ Green lease framework to be adopted where viable</li> <li>■ Procurement Strategy adopted by Managing Agents to actively influence our supply chain</li> <li>■ Water and Waste data captured to create baseline to drive performance</li> <li>■ Implementation of detailed sustainability audits on high consuming assets</li> </ul> |
| <b>On Site generation and renewable procurement</b> | <ul style="list-style-type: none"> <li>■ Decarbonisation of the portfolio and the grid through support for long term renewable generation</li> </ul>  | <ul style="list-style-type: none"> <li>■ Procure renewable electricity (REGO backed) on directly procured supplies wherever possible</li> <li>■ Consider green gas</li> <li>■ Consider PPA's as the market develops</li> <li>■ Consider Solar PV in all new developments and major refurbishments (where viable)</li> <li>■ Remove fossil fuel consumption from assets as the opportunity arises</li> </ul>   | <ul style="list-style-type: none"> <li>■ % electricity procured from renewable sources (REGO backed)</li> <li>■ % gas procured from renewable sources</li> <li>■ % portfolio with on-site renewable electricity capacity</li> </ul>   | <p>We will track the following metrics on an annual basis:</p> <ul style="list-style-type: none"> <li>■ % of directly managed electricity which is REGO backed</li> <li>■ % of directly managed gas which is renewably sourced</li> <li>■ % PV coverage by floor area</li> </ul>  |
| <b>Embodied carbon</b>                              | <ul style="list-style-type: none"> <li>■ Reduce embodied carbon through the development and refurbishment process through prolonging lifespan of assets, efficient design and responsible sourcing</li> </ul>   | <ul style="list-style-type: none"> <li>■ We will develop an approach to measure the carbon associated with development projects and refurbishments, and seek opportunities to reduce carbon through the efficient use of materials and use of recycled materials</li> </ul>   | <ul style="list-style-type: none"> <li>■ Embodied carbon intensity (kgCO<sub>2</sub>e/m<sup>2</sup>)</li> </ul>   | <ul style="list-style-type: none"> <li>■ Refurbishment Guidance requirement ensures that the need for measurement of embodied carbon will be understood</li> <li>■ Procurement strategy ensures engagement with supply chain</li> </ul>   |
| <b>Offsetting</b>                                   | <ul style="list-style-type: none"> <li>■ We accept that over time we will need to offset remaining carbon to reach a Net Zero position</li> </ul>   | <ul style="list-style-type: none"> <li>■ Seek effective and productive opportunities around offsetting, with routine and transparent reviews</li> <li>■ Engage all stakeholders</li> <li>■ Review and continue to monitor viable renewable technologies</li> </ul>  | <ul style="list-style-type: none"> <li>■ Total carbon offset tonnes/pt</li> </ul>   |   |

# GOVERNANCE

We have a robust governance framework which will ensure that all stakeholders are engaged and committed to this strategy.





# GLOSSARY

**Better Buildings Partnership (BBP):** The BBP is a collaboration of the UK's leading commercial property owners who are working together to improve the sustainability of existing commercial building stock. This strategy is set out in the BBP's Net Zero Carbon Pathway Framework.

**Carbon dioxide equivalent (CO<sub>2</sub>e):** CO<sub>2</sub>e is a unit for measuring carbon footprints. It allows for the expression of the impact of different greenhouse gases in terms of the amount of CO<sub>2</sub> that would lead to an equivalent amount of global warming impact. As a result, the total impact of all these gases can be expressed as a single number in a same unit.

**Carbon Offsetting:** Any activity that compensates for the emission of carbon dioxide (CO<sub>2</sub>) or other greenhouse gases (measured in carbon dioxide equivalents (CO<sub>2</sub>e) by providing for an emission reduction elsewhere.

**Carbon Risk Real Estate Monitor (CRREM):** CRREM is an EU-funded project to support the understanding of decarbonisation pathways for real estate. It will provide the industry with science-based carbon reduction pathways at building, portfolio and company level and with financial risk assessment tools to cost-effectively manage carbon mitigation strategies.

**Embodied Carbon:** The carbon emissions emitted producing a building's materials, their transport and installation on site as well as their disposal at end of life.

**Energy Use Intensity (EUI):** A building's energy use per unit size, typically expressed as energy consumption in kWh per square metre per year. The measurement of floor area can be expressed in terms of Net Lettable Area (NLA) or Gross Internal Area (GIA). EUIs are commonly expressed in terms of electricity equivalent (kWh<sub>e</sub>).

**Net Zero Carbon (NZC):** CTI has adopted the UKGBC definition of Net Zero Carbon, which is described in its simplest form as: when the carbon emissions emitted as a result of all activities associated with the development, ownership and servicing of a building are zero or negative.

**Operational Carbon:** The term used to describe the emissions of carbon dioxide and other greenhouse gases during the in-use operation of a building, most materially from energy use and refrigerants.

**Power Purchase Agreements (PPA's):** A power purchase agreement is a contract entered into between a generator and a customer which allows the customer to have a direct purchasing relationship with a generator without needing a direct physical connection to the generation plant (such as under a private wire arrangement). It may take the form of a traditional PPA or be a type of contract for difference. A corporate PPA can bring electricity consumers and generators together irrespective of location.

**Renewable Energy Guarantee Origin (REGO) –** This certification scheme provides transparency to consumers about the proportion of electricity that supplier's source from verified renewable generation.

**Scope 1 emissions:** Direct emissions within a company's organisational boundary from sources the company owns or controls, including company vehicles and combustion of fuel in company plant.

**Scope 2 emissions:** Indirect emissions from purchased or acquired electricity, steam, heat and cooling.

**Scope 3 emissions:** All other indirect emissions, e.g. business travel, deliveries, commuting, waste from a company supply chain.

**The Paris Agreement:** The Paris Agreement is a legally binding international treaty on climate change, adopted at COP 21 in Paris on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. To achieve this long-term temperature goal, countries aim to reach a global peak of greenhouse gas emissions as soon as possible to achieve a climate neutral world by mid-century. The Paris Agreement works on a five-year cycle of increasingly ambitious climate action carried out by countries.

**UK Green Building Council (UKGBC):** The UK Green Building Council aims to radically improve the sustainability of the built environment, by transforming the way it is planned, designed, constructed, maintained and operated.

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