



NET ZERO CARBON PATHWAY FRAMEWORK

Supporting Signatories of the BBP Climate Commitment

Opening Statement

Climate change is one of the greatest threats of our time and has far reaching implications for the real estate industry. With the built environment contributing approximately 40% of greenhouse gas emissions in the UK1, the thought of tackling this challenge can seem daunting.

The path to net zero carbon is complex, challenging and uncertain, with much of the detail still unknown. However, this is not a reason to delay action. It is critical that the real estate industry acknowledges the important role it has to play, embraces the challenge, and collaborates.

This was a guiding principle in the development of the BBP Climate Commitment. Launched in September 2019, it is one of the most comprehensive and extensive commitments in the real estate industry. It includes some of the most challenging emission sources for property owners to measure and manage, namely tenant energy consumption and embodied carbon. To that end, the Commitment is extremely ambitious in nature. Yet, members of the BBP understand and accept that if we are to tackle the full climate impact of the built environment, we must reflect the broad scope of carbon emissions that are associated with our property investments, even if we are not yet sure how we will do it.

The Commitment requires each signatory to publish their own Net Zero Carbon Pathway, setting out how they will be delivering against a net zero carbon target. The Commitment also requires signatories to report annually against their pathways, ensuring that we remain transparent and can gauge progress over time.

This Framework sets out the building blocks of a net zero carbon pathway for property owners. It has been designed to support Signatories, but it can also be used by any property owner seeking to develop their own pathway. It has been developed with extensive input from BBP members, demonstrating collective drive from the industry.

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It is important to emphasise that the Framework is a working document. It is not set in stone. It is expected that it will change over time to reflect our evolving understanding of both the key attributes of a net zero carbon pathway, and how these can be applied in the context of different investment and operating models

M&G Real Estate is a proud signatory of the BBP Climate Commitment, and I look forward to working with my peers within the BBP to tackle the challenges that lay ahead. If we are to be successful as a sector, we must work together. This is only the first step, but collectively, we will achieve far more than we can alone.

We encourage all real estate owners to follow this Framework in the development of their own Net Zero Carbon Pathways and to sign up to the BBP Climate Commitment.



Nina Reid Director, Responsible Property Investment, M&G Real Estate Chair of the BBP Net Zero Carbon Pathway Working Group



Introduction

It has become evident that urgent action is needed to combat climate change. Recent reports published by the Intergovernmental Panel on Climate Change (IPCC) confirm the importance of limiting the global temperature increase to 1.5 degrees Celsius.² Currently, the world is on track for 2.8-4.8 degrees of warming.³

Businesses are becoming increasingly vocal on the need to respond to the issue of climate change and many organisations have sought to demonstrate action by making commitments to become "net zero carbon". The commercial real estate sector is no different. In September 2019 the Better Buildings Partnership launched its Climate Commitment⁴ (see Appendix 1 for the full text). One of the key requirements is for Signatories to each publish a Net Zero Carbon Pathway, setting out how they plan to deliver "net zero carbon" real estate investments by 2050 at the latest, as well as publish progress towards this goal annually.

There is currently much ambiguity surrounding the definition and scope of "net zero carbon" commitments. This is certainly true in the property sector and is to be expected as the industry grapples with some of the new and unique challenges of what "net zero carbon" means for real estate investments – particularly given the wide ranging ownership structures, leasing models and management control throughout their life cycle.

The BBP Climate Commitment was developed to demonstrate leadership, but also to encourage greater industry consistency and drive market transformation. It sets clear boundaries that apply equally to all Signatories with the intention that the Commitment covers as many real estate assets under management as possible and includes emissions from all major activities associated with the development, operation and servicing of commercial real estate investments. The boundaries of the Commitment are absolutely critical and can be summarised as follows:

• Investment boundaries: All real estate holdings that a signatory has capital invested in, unless clearly stated otherwise. For indirect real estate investments it is recommended that carbon emissions should be attributed on a proportional share basis relative to ownership.

Carbon boundaries:⁵

- Operational carbon, critically covering whole building performance, including occupier activities; and services procured by the landlord to service and maintain the space.
- Embodied carbon of development, refurbishment and fit-out works.

It is important to note that the Signatories' Net Zero Carbon Pathways will vary according to their real estate investment strategies, business models and leasing structures, and any review of Signatories' pathways should take account of this. It is also anticipated that Signatories' Pathways will evolve over time as best-practice is shared and understanding improves.



How to use the document

This document is intended for use by Signatories of the Better Buildings Partnership's Climate Commitment.

It is designed to support those individuals who will be responsible for outlining their organisations' Net Zero Carbon Pathways. It also indicates the nature of the information that the BBP would expect to see in a Net Zero Carbon Pathway. It can therefore be used by any property owner and it is hoped that this will provide some muchneeded clarity and consistency for the sector.

The document provides:

- 1. Guidance on the carbon and investment boundaries covered by the Commitment, and where additional information may be required.
- 2. A delivery strategy template that outlines the topic areas that should be covered and the information that could be provided to articulate how the Net Zero Carbon Target will be delivered and reported against.

PUSHING THE BOUNDARIES:

DELIVERING AGAINST A CHALLENGING COMMITMENT SCOPE

Climate change is a rapidly evolving issue, and one which requires bold action. The carbon emissions associated with the ownership and management of real estate portfolios will include activities that are under the property owner or manager's direct and indirect control.

The scope of the carbon footprint covered by the BBP Climate Commitment is intended to cover the material sources of carbon that need to be reduced to net zero by 2050 by real estate owners and investors. However, for several sources of carbon covered by the Commitment, the industry is still working with limited data, particularly for areas not under the direct control of property owners e.g. emissions associated with occupier activities.

It was important to Signatories that the Commitment covered these material sources of carbon, even if the industry is still grappling with how to measure and reduce it.



It should therefore be recognised that in reviewing any Net Zero Carbon Pathway published by Signatories, the level of action and underlying detail will not be equal across all business areas at first. It should be expected that, initially, the business areas that are easiest to tackle will include the most comprehensive and detailed delivery strategies. Conversely, the more challenging areas will contain the least amount of detail, with a focus on filling data gaps and developing strategies.

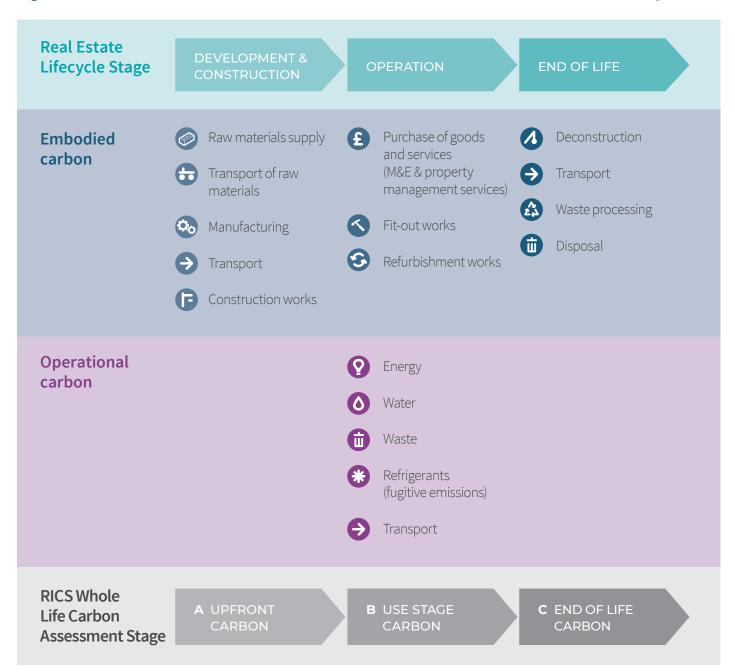
It will take time for industry understanding and consensus to develop regarding how best to overcome these challenges and it is fully intended that Signatories' Net Zero Carbon Pathways will evolve over time as this understanding improves. However, Signatories of the BBP Climate Commitment recognise the importance of highlighting these now in order to be transparent about the enormity of the challenges that lie ahead, and to drive collective action in the hope of overcoming such challenges together.



What is Net Zero Carbon?

In its simplest form, "net zero carbon" is 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. As outlined in Figure 1 below, the scope of these activities is extensive.

Figure 1. Overview of carbon emission sources across with the real estate investment life-cycle



A review of corporate net zero carbon commitments will show wide ranging variations in the carbon scope included within any given organisation's target. One of the most common variations is whether a target includes operational carbon (i.e. carbon associated with the energy used to operate a building), embodied carbon (i.e. the carbon associated with all the material and operations to construct and maintain a building) or both. Even looking more granularly at operational carbon, one can see differences in whether targets only include landlord energy usage (Scope 1 & 2 emissions) or also include occupier energy usage (Scope 3 emissions). Such variations can make the comparison of commitments and targets between organisations challenging at best, and in many cases, impossible.

Those companies that have signed the BBP Climate Commitment have agreed a common basis for target setting and reporting that includes carbon emissions arising from the energy used to operate, service and maintain the property—both regulated and unregulated and the embodied carbon for construction, refurbishment and fit-out activities.

Work is being undertaken by the industry, including that of the UK Green Building Council⁶ to help build consensus around the detail of a net zero carbon definition for the built environment.

However, there are still many questions that need to be answered before a clear and consistent agreement on what net zero means for the real estate industry can be

established. Specifically, further work is required by the industry to answer the following:

- Do buildings need to achieve an Energy Use **Intensity (EUI) target?** The work undertaken by the UK Green Building Council and the Carbon Risk Real Estate Monitor (CRREM) suggests that this will be needed. Further work is required to ensure that EUIs are developed across a wide range of property types and that these are appropriate in relation to different geographical contexts.
- What is acceptable in terms of renewable energy **procurement?** Clarity is required regarding any standards for renewable energy procurement to be considered net zero carbon compliant.
- What is acceptable in terms of the approach and type of carbon offsetting?
- How can organisations confidently announce the achievement of a net zero carbon building or portfolio?

It is clear from discussions within the BBP membership that there is a strong desire for market transparency and integrity concerning the verification and certification of net zero carbon buildings and portfolios. There is a strong demand for the creation of a certification scheme that will provide this level of assurance and in doing so, embody the principles of the energy hierarchy. It is hoped that such an offering may be developed in the near future.



Net Zero Carbon Pathway Framework

1. NET ZERO CARBON TARGET DATE

Signatories must state their Net Zero Carbon Target date that covers the full scope and boundaries of the Commitment. This will be 2050 unless an earlier date is selected.

Signatories can provide voluntary interim targets. Where the scope differs from that outlined in Table 1 below, it should be clearly stated.

2. INVESTMENT BOUNDARY

Each Signatory should clearly articulate the investment boundary of their Net Zero Carbon Target.

The investment boundary of Signatories' Net Zero Carbon Targets may vary depending on each individual company's business strucutre, (e.g. whether they are a a property company, REIT or fund manager) and the real estate investment vehicles they manage and utilise.

Signatories that invest across multiple geographies should make clear whether any specific geographies are not included within their Net Zero Carbon Target.

For fund managers who have multiple types of real estate investment vehicles (e.g. unlisted funds, listed and unlisted companies and real estate debt), they should be clear which investment vehicles are included within their Net Zero Carbon Target. In an effort to ensure consistency of approach and transparency, Signatories must clearly state any real estate investment vehicles that are not in scope of the target, coupled with the reasoning and a measure of financial materiality, i.e. percentage of total real estate investments.

Where a real estate investment vehicle is included, all assets under management owned by the Signatory must be included within the investment boundary i.e. Signatories should not selectively cherry pick individual properties for inclusion or exclusion.

Where real estate investments are managed by a third party, e.g., Joint Ventures (JVs) and indirect real estate investments, these should be included either on a proportional basis by ownership, or by operational control where a level of operational control exists. Approaches should be consistent when including multiple JVs.

For example, two real estate investors who have signed up to the BBP Climate Commitment co-own a shopping centre through a JV partnership - one owning 75% and the other owning 25%. The owner with a 75% equity share also has full management control of the property. In this scenario:

- The owner with the minority share will include the shopping centre within its investment boundary and report the carbon proportionally in line with its 25% equity share.
- The owner with the majority share will include the shopping centre within its investment boundary and can elect to either report 100% of the carbon in line with its management control, or 75% in line with its equity share.

It is appreciated that within this example there is a risk of double counting if the two property owners do not elect to apply the GHG Reporting Protocol in a consistent manner. However, the BBP is not specifying how Signatories should report against the GHG Reporting Protocol as both options are valid. It is also felt any risk of double counting is not material to the efforts of developing a Net Zero Carbon Pathway.

It is fully appreciated that including indirect real estate investments within the scope of a Net Zero Carbon Target is likely to be significantly more challenging than direct investments due to the level of control and access to data individual Signatories have for those investments. To support Signatories in assessing how their individual real estate investment boundaries should be articulated within their Net Zero Carbon Pathway an example is provided in Figure 2.





In such a scenario, the following example commentary would be expected to be included in a Signtatories' published Net Zero Carbon Pathway.

"ABC Real Estate Investment Management is responsible for £50bn AUM globally. Our Net Zero Carbon Target has been formally ratified for our real estate investments covering EMEA & Asia Pacific totalling £30 AUM. However, our £3bn UK debt fund has been removed from the boundary of our net zero carbon target due to the lack of data we hold to fully understand the implications of including this fund within our target. We have started a two-year plan to review this and assess how this fund can be integrated into our target in the future.

In addition, as a result of the company structure, our North American real estate investments, totalling £17bn AUM, have not been ratified for inclusion. We are working to understand the implications of including these investments within our net zero carbon target investment boundary and will be reviewing our position in the coming year."



3. CARBON EMISSION BOUNDARIES

Each Signatory must clearly articulate the sources of greenhouse gas emissions (referred to throughout this document as carbon) included within their Net Zero Carbon Target.

In an effort to ensure consistency, the carbon sources included within each Signatory's Net Zero Carbon Target should be confirmed against carbon sources

set out in Table 1. If there is divergence, particularly regarding the addition of any interim targets, Signatories must clearly state where this is the case, coupled with the reasoning and a measure of materiality.

A more detailed table which demonstrates the range of the carbon sources recognised by the Commitment and their alignment to the Greenhouse Gas Protocol can be found in Appendix 2.

Table 1: BBP Climate Commitment Carbon Boundaries

 \checkmark = activities that should be included within Signatories net zero carbon target.

Activities which generate GHG emissions for real estate investments (directly or indirectly)	Activities controlled and managed by landlords*	Activities controlled and managed by occupiers	Corporate / Head Office
Energy to operate buildings (electricity, fuels & heat networks)	✓	✓	•
Water to operate buildings	✓		•
Waste generated during operation	✓		•
Refrigerants (Fugitive emissions)	✓		•
Purchase of goods and services (M&E & property management services)**	✓		•
Business travel (excluding that associated with development works)			•
New development works	✓		•
Refurbishment works	✓	✓	•
Fit-out Works	✓	✓	•
End of life***			

It is expected that this includes all AUM covered by the BBP Climate Commitment, including indirect investments on a proportional share basis. Signatories must clearly state whether these emissions will be covered proportionally on the basis of ownership or operational control.

Corporate emissions are not included within the scope as the focus of the BBP Climate Commitment is on Signatories' real estate investments. It is also likley these emissions are not significantly material. However, some Signatories may voluntarily elect to include them in their target scope.



 $This \ relates \ to \ services \ procured \ by \ the \ landlord \ to \ service \ and \ maintain \ the \ space \ e.g., \ property \ management, \ service \ charge \ recoverable \ items \ and \ maintain \ the \ space \ e.g., \ property \ management, \ service \ charge \ recoverable \ items \ and \ maintain \ the \ space \ e.g., \ property \ management, \ service \ charge \ recoverable \ items \ and \ maintain \ the \ space \ e.g., \ property \ management, \ service \ charge \ recoverable \ items \ and \ service \ services \ property \ management, \ property \ management, \ services \ property \ management, \ services \ property \ management, \ services \ property \ pr$ minor CapEx items e.g. minor replacements.

^{***} End of life carbon has not been included within the scope of the BBP Climate Commitment due to lack of industry consensus on how it should be accounted for. As industry understanding improves and an agreed approach adopted, this position will be reviewed.

4. DELIVERY STRATEGY

Signatories must include a delivery strategy for their Net Zero Carbon Target.

Table 2 provides a recommended template for how Signatories can set out their delivery strategies. The Table lists a series of topics ordered by the principles of the energy hierarchy. Whilst no specific requirements or standards are set as part of a delivery strategy, it is the BBP's view that any credible Net Zero Carbon Pathway must follow the energy hierarchy.

For each topic area it is recommended that Signatories set their own outcomes or aims. Each outcome or aim should be supplemented by commentary on how it will be delivered, together with the metric(s) used to report against progress as part of annual reporting requirements. If there are significant differences in approach across geographies or indirect investments, then this should be clearly described.

It should be recognised that each Signatory will implement their own approach tailored to their individual business activities and associated challenges. As referenced above, it is expected that actions and detailed commentary will initially focus on the business areas that are easiest to tackle. It is also expected that the more challenging areas will initially be less sophisticated in their approach, with a focus on filling data gaps and developing strategies.

It is expected that Signatories will update their delivery strategies on a periodic basis.

Table 2: Delivery Strategy Table

TOPIC	OUTCOMES / AIMS	DELIVERY / MANAGEMENT STRATEGY	REPORTING METRICS
Operational Carbon (energy, water & waste)	Desired outcomes in relation to improving operational carbon performance and efficiency across the portfolio.	 Commentary could cover: Acquisition strategy and processes. Asset, property management and FM strategies. Tenant engagement & data collection strategy. Energy, water, waste & carbon targets (for existing building and major refurbishments/ new developments. Measurement & monitoring strategy. 	
On-site generation	Desired outcomes in relation to installing on-site renewables.	Commentary could cover:Strategy to identify on-site capability for the installation of renewables.Delivery / roll-out strategy.	
Renewables Procurement	Desired outcomes in relation to the procurement of renewables energy.	Commentary could cover: Procurement strategy covering renewable energy tariffs, Power Purchase Agreements and considerations for additionality. Strategy for encouraging renewable tariffs where tenants procure their own supplies.	
Embodied carbon associated with capital goods, services, and capital works e.g. management, maintenance, fit-outs, refurbishment and new development	Desired outcomes in relation to measuring and reducing embodied carbon.	 Commentary could cover: Requirements for new development / refurbishment briefs. Embodied carbon targets. Measuring and monitoring strategy and commentary on calculation methodologies used. Asset, property management and FM strategies. Procurement strategy. Strategy for capturing and managing tenant embodied carbon impacts. 	
Offsetting	Desired outcomes in relation to offsetting carbon emissions.	Commentary could cover: Principles and approach to offsetting e.g. Type of project and locations; use of independent standards etc. Proportion of carbon to be offset. Development of an internal cost of carbon to support procurement decision making.	
Third-party verification; industry standards and certification	Desired outcomes in relation to third party verification of quality assurance purposes, and the use of certification schemes & industry standards.	Commentary could cover: Use of third-party assurance & verification to audit performance against the Net Zero Carbon Pathway. Use of any certification scheme or industry standard.	

Appendix 1 – BBP Climate Commitment

We, the undersigned, make the following commitments:

- By the end of 2020, we will each publish our own net zero carbon pathway, outlining our trajectory towards net zero carbon new and existing buildings, and will address:
 - Operational carbon, critically covering whole building performance including our tenant's activities.
 - Embodied carbon of development, refurbishment and fit-out works.
 - In developing our net zero carbon pathways we will follow the principles of the energy hierarchy to ensure effort is focused first on reducing energy demand and improving energy efficiency. To this end, we will support the development of property specific Energy Use Intensity (EUI) targets.
- We will each annually disclose our progress towards our net zero carbon pathway and in doing so, explain the scope and implementation of this commitment as it relates to our individual business.
- We will publicly disclose the energy performance of our portfolios, where we have permission to do so, as a minimum at a portfolio level by geography, and ideally at a property level, and support efforts to develop consistent industry performance disclosure and benchmarks.
- By 2022, we will develop comprehensive climate change resilience strategies for our portfolios and work together to develop consistent industry disclosure on climate change risks in line with industry standards, including the Task Force on Climate Related Financial Disclosure.
- To support the implementation of this commitment, we will work with the BBP to:
 - Develop guidance on net zero carbon pathways for property owners to encourage greater consistency in definitions and boundaries.
 - Develop clear guidance for the industry on the procurement of renewable energy for real estate assets to ensure that any purchasing in the UK creates additional capacity.

Convene an 'owner & occupier' forum inviting our tenants to challenge property owners and engage with us to improve the performance of the space they occupy in line with our net zero carbon pathways.

Members of the BBP have diverse portfolios with different ownership and leasing structures, management arrangements and occupiers - how we implement these commitments within our businesses will differ. However, it is important to emphasise that we will adopt a 'comply or explain' approach to this commitment, with the intention that it will cover as many buildings as possible within our portfolios; the scale of the challenge ahead makes this absolutely imperative.

We see the real estate market's transition to a low carbon economy as an opportunity to drive innovation, respond to future demands and expectations of our occupiers and investors, and open up new markets for investment in real estate.

To meet these commitments will require unprecedented collaboration across the industry. We therefore also call upon:

- All our stakeholders (e.g., investors, occupiers, architects, engineers, contractors, managing agents, facilities managers) to disclose their own pathways to net zero carbon buildings and actively engage with us to help us deliver on these commitments.
- Professional bodies and built environment institutions to develop industry standards and support these with education and training to upskill the industry to deliver net zero carbon buildings.
- Government to deliver a supportive legislative agenda with a clear long-term trajectory to achieve net zero carbon buildings.
- All property owners to adopt the same commitments.

We will work with the BBP to monitor and report on our progress and to spearhead collaborative, collective action that delivers better buildings and creates long-term value for all of our stakeholders, including future generations.



Appendix 2 – Detailed Carbon Scope Table & Greenhouse Gas Protocol Alignment

The table below provides an extended breakdown of Table 1. on page 8, that outlines the carbon scope covered within the BBP Climate Commitment. In addition to the breakdown

of activities, references to the carbon scope, as well as how activities align to the GHG Protocol reporting categories are also provided.

Business Area	Sub-Area	GHG Protocol Reporting Category	Carbon Scope	Commitment Inclusion
Corporate	Head office energy use	Company facilities	1 & 2	•
	Company vehicles	Company Vehicles	1	•
	Business travel (excluding commuting)	Business travel	3	•
	Purchased Goods and 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 and steam	1, 2 & 3	~
	Tenant purchased energy (electricity & fuels)	Downstream leased assets	3	✓
	Landlord refrigerants	Purchased goods and 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 and services	3	✓



Investments (Indirect Real Estate Holdings, e.g., where investments are managed by a third party such	Landlord purchased	Investments (proportional to the	3	J
	Energy (electricity & fuels)	investment)	<u> </u>	· ·
	Tenant purchased energy (electricity & fuels)	Investments (proportional to the investment)	3	✓
	Landlord refrigerants	Investments (proportional to the investment)	3	✓
as JVs with no management	Tenant refrigerants	Tenant Scope 3	3	
control or investments in	Landlord purchased water	Investments (proportional to the investment)	3	~
other real estate investment	Tenant purchased water	Tenant Scope 3	3	
vehicles)*	Landlord managed operational waste	Investments (proportional to the investment)	3	~
	Tenant managed operational waste	Tenant Scope 3	3	
	Visitors 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 and services	3	✓
Development	New development (including those where funding is being provided)	Purchased Goods & Services	3	✓
	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	***

- Corporate emissions are not included within the scope as the focus of the BBP Climate Commitment is on Signatories real estate investments. It is also likley these emissions are not significantly material. However, some Signatories may voluntarily elect to include them in their target scope.
- For indirect investments it is recommended that carbon emissions should be attributed as a % ownership of the investment.
- $This \ relates \ to \ services \ procured \ by \ the \ landlord \ to \ service \ and \ maintain \ the \ space \ e.g. \ property \ management, service \ charge \ recoverable$ items and minor CapEx items e.g. minor replacements.
- *** End of life carbon has not been included within the scope of the BBP Climate Commitment due to lack of industry consensus on how it should be accounted for. As industry understanding improves and an agreed approach adopted, this position will be reviewed.



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- 3 Climate Action Tracker. Accessed 09 June 2020. https://climateactiontracker.org/global/temperatures/
- 4 https://www.betterbuildingspartnership.co.uk/ member-climate-change-commitment
- 5 For the purpose of this document the phrase "carbon" to used as short-hand for carbon dioxide equivalent, including all associated greenhouse gas emissions.
- 6 https://www.ukgbc.org/ukgbc-work/advancing-net-zero

