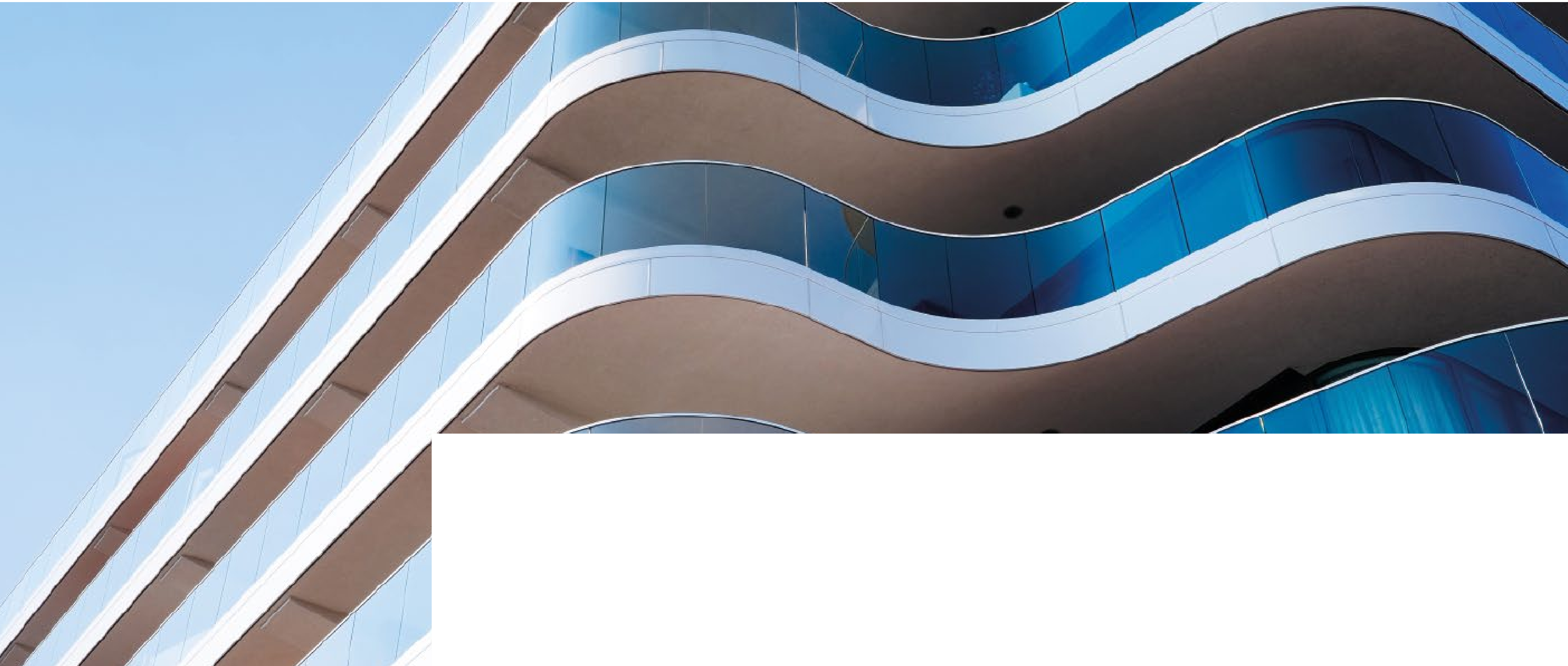
For Investment Professionals only

Our progress towards Net Zero real estate and climate resilience



Contents

Introduction

Tony Brown
Global Head of Real Estate

M&G Real Estate, the property investment manager for M&G Investments, is one of the world's largest real estate investment managers, with £37.4bn[1] of assets under management globally. As a part of M&G plc, sustainability is a core element of our purpose: to help people manage and grow their savings and investments, responsibly.

The events of the last few years have firmly focused our industry's attention on tomorrow's world. As long-term investors, our goal is to de-risk our clients' investments by transitioning portfolios to Net Zero Carbon and preparing for the inevitable physical risks that come with a rapidly changing global climate and weather system.

The Intergovernmental Panel on Climate Change (IPCC) is clear that all Net Zero pathways that limit global warming to 1.5°C – with no or limited overshoot – as well as those that keep the temperature rise within 2°C, require rapid and deep greenhouse gas emissions (GHG) reductions this decade. To limit any increase to 1.5°C, all players need to play a part in the aggregate 43% decrease by 2030 against a 2019 baseline. The real estate sector plays a significant role in addressing climate change, through the signals we send, and by channelling capital towards mitigation and adaptation.

As a signatory to the UK Better Buildings Partnership's (BBP) Climate Change Commitment[2], we have committed to achieving Net Zero Carbon across our global real estate portfolio by 2050.

As part of this commitment, we have prepared this document to shine a spotlight on our progress towards our climate ambitions, using the most complete available data. We operate globally and across many different sectors, which can make a single global approach or targets inappropriate. Therefore, in supplement to this document, we set out fund-specific targets as well as performance data to provide evidence to investors of our approach and commitment at a fund level.

We have tried to be open about the complexity and challenges we face, both as an organisation and as a sector, and have sought to provide transparency around our approach, our progress to date and our plans for the future.

[1] Including cash and indirect investment as at 30 September 2023.
[2] https://www.betterbuildingspartnership.co.uk/

ESG highlights[3]

Our 2050 Net Zero pathways focus on **£27**bn of our managed assets globally, representing **72**% of AUM[4].

16% drop in absolute electricity use across our global portfolio (2021 vs. 2022)[5]. We procure **94**% of our electricity in the UK from renewable sources[6].

90% of surveys submitted achieved 4 or 5 Star rating[7]. M&G Real Estate ranked **1st** out of 1013 European participants in the Management Component.

Renewable energy production in 2022 **3,773**MWh enough to power over **1,400** homes for a year[8]. **89**% waste diverted from landfill[9]. **100**% of our portfolio is assessed for climate risk.

Green Building Certifications[11]

M&G Real Estate received **5** stars in the UNPRI Reporting (Direct Real Estate) Framework[10].

226 assets have a green building certification (50% of Global AUM[12])

M&G Real Estate is a member of the Better Buildings Partnership (BBP), and a founding signatory to the BBP's Climate Change Commitment. We're also collaborating with the wider industry to help produce the Net Zero Carbon Building Standard by contributing data to assist with benchmark creation.

[3] Environmental performance data covers 67% of Global AUM (as at 30 September 2023). Greenhouse gas data covers 72% of global AUM by value at 31 September 2023. Reported emission data is an aggregate of fund-level information from multiple reporting periods, these have been aligned to YE2022 where possible. Further information is available on request.
[4] AUM includes direct real estate investments, developments and forward funded deals (as at 30 September 2023)
[5] Landlord controlled
[6] Absolute landlord-controlled electricity only from off-site renewables
[7] Based on GRESB 2023 Real Estate Assessment results released on 1 October 2023. GRESB ratings should not be taken as a recommendation. Find out more about GRESB rating methodology here : https://www.gresb.com/wp-content/uploads/resources-gresb-real-estate-methodology.pdf
[8] Based on data from the Office of Gas and Electricity Markets (Ofgem), the average UK household uses 2,700 kWh of electricity per year
[9] Refers to total landlord controlled waste for the global portfolio where data is available
[10] 2023 PRI Survey https://www.unpri.org/signatories/reporting-and-assessment
[11] This covers a range of recognised certificates internationally including, but not limited to, BREEAM, DGNB, LEED, HQE, CASBEE, NABERS and Greenstar
[12] As of 30 September 2023

Our commitment

We are of the view that rigorous management of our climate transition risk is not just important for the planet, but for our investors as well. We aim to support our clients to address climate change by providing the vision, strategy and means to transition their real estate assets to Net Zero by 2050.

M&G Real Estate formalised its commitment in late 2019 by becoming one of the founding signatories of the BBP's Climate Change Commitment. We also co-chair the BBP's Net Zero working group which aims to set standards and share guidance among the BBPs membership and wider industry on delivering Net Zero Carbon.

Additionally, M&G plc has been a signatory to the:

Net Zero Asset Managers Initiative (NZAMI)

The Net Zero Asset Managers Initiative is an international group of asset managers committed to supporting the goal of Net Zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5°C.[7]

Net Zero Asset Owners Alliance (NZAOA)

The Net Zero Asset Owners Alliance is an UN-convened group of 74 leading global institutional investors, representing $10.6tn of capital, committed to transitioning their investment portfolios to Net Zero Greenhouse Gas emissions by 2050, with the aim of helping limit global warming to 1.5°C.

Further information about targets relating to NZAMI and the NZAOA can be found at https://www.mandg.com/sustainability/environment/climate-change/climate-net-zero

Finally, as a company we have committed to reduce our own operational carbon emissions to Net Zero by 2050[13].

[13] For more information on M&G's Climate Transition Plan see Climate Change – M&G plc (mandg.com)

The extent of our commitment

Our commitment to the BBP Climate Change Commitment[14] covers all of the funds under management by M&G Real Estate, both pooled and segregated. The following investment activities fall within the scope of our long-term 2050 commitment but have yet to be incorporated into our Net Zero Carbon pathways or commitments unless explicitly stated. Our aim is to develop our approach around these activities:

Indirect investments £4.8bn (13%) of AUM

We seek to engage with third party funds and underlying managers to encourage dialogue and ensure they develop appropriate ESG procedures and align with Net Zero principles. In time we will develop approaches to track their progress and map these against our own Net Zero commitments.

Debt £4.4bn (12%) of AUM

We seek to drive a better understanding of emissions in private real estate debt investments and improve our own capabilities and processes to report these, sharing our learnings initially with our largest clients so they can better understand their portfolio impacts. Currently, a common understanding of the methodology for carbon accounting in private debt has not yet been reached. As we develop improved processes to measure, forecast and report our emissions in these asset classes, we will construct and disclose our Net Zero pathways.

Corporate emissions

These fall within the remit of our parent company, M&G plc, which has committed to reach Net Zero Carbon emissions for its own business operations by 2050, which includes phasing out fossil fuels across all occupied offices within its operational control.[9]

Currently included in M&G Real Estate's commitment:

Direct Real Estate investments globally ie, all funds under management

£27bn

Currently excluded in M&G Real Estate's commitment:

Indirect investments, debt, corporate emissions, cash, land

£10.3bn

[14] There are some investment activities outside of this remit including non-real estate assets, such as land, in addition to cash and assets where we have a purely advisory role. These represent c.19.2% of AUM (as at 30 September 2023) and form a small part of our overall carbon impact or offer limited opportunity for improvement or influence.

Our approach to Net Zero

The concept of Net Zero is both simple and deeply complex. At its simplest, it means a building creates no carbon emissions from its annual operations (operational carbon), and that the production, storage and transport of the materials and methods used to develop or maintain a building create no carbon emissions (embodied carbon).

Our 2050 target includes operational emissions – Scope 1, 2 and 3 (including whole building emissions associated with our tenants' activities) – and embodied carbon emissions from developments, refurbishments and fit-out works.

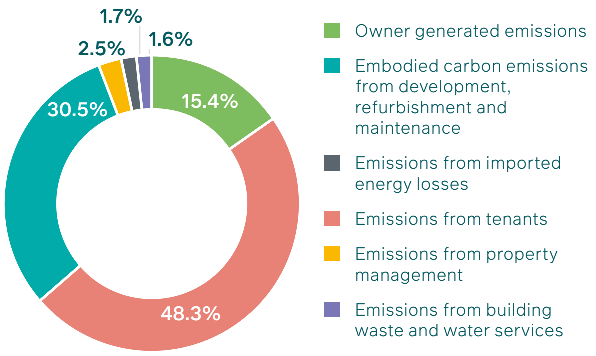
The first step in developing pathways to Net Zero Carbon is to gain a clearer understanding of our carbon footprint, looking at our:

Scope[15]	Description	Key Emission Sources
Scope 1 and 2 GHG emissions	These are emissions that directly result from the landlord's activities where there is operational control, either through the purchase and consumption of energy for heat and cooling in buildings or the fugitive emissions from refrigerant gas	• On-site fuel combustion in landlord- and directly-managed areas • Refrigerants (fugitive emissions) • Electricity that we purchase from the grid • Purchased heating and cooling
Scope 3 GHG emissions	These are indirect emissions that occur from our value chain over which we have a degree of influence but limited control. This category covers upstream emissions from our suppliers for the things we purchase (including construction-related materials and property maintenance) and the downstream emissions from our tenants	• Refurbishment, repair and replacement of building systems and services • The manufacture and transport of materials used in refurbishment and development projects • Construction activities including installation and use of on-site equipment • Emissions from water and waste disposal in buildings • Emissions from energy use in tenanted spaces

[15] For more information refer to the GHG Protocol: https://ghgprotocol.org/

Our carbon footprint, illustrated in the chart below, details the extent and type of emissions under the three scope categories. Indirect, Scope 3 emissions make up most of our carbon footprint, and the embodied carbon of our development projects and the energy consumed by our tenants in our leased assets make up the greater portion of these emissions. This is consistent with our peers in the real estate sector.

Breakdown of greenhouse gas emissions by activity[16]



[16] Source: Evora Global
[17] Our approach and definitions will continue to evolve alongside the industry.

Achieving Net Zero will come through a combination of reducing carbon emissions as far as possible through improved efficiency or lower carbon product specification, generation of on-site renewable energy, use of off-site renewable energy, and where strictly necessary, offsetting any remaining emissions.

For the purpose of our Net Zero approach, we have used the principles that follow[17].

To achieve operational Net Zero, buildings must be:

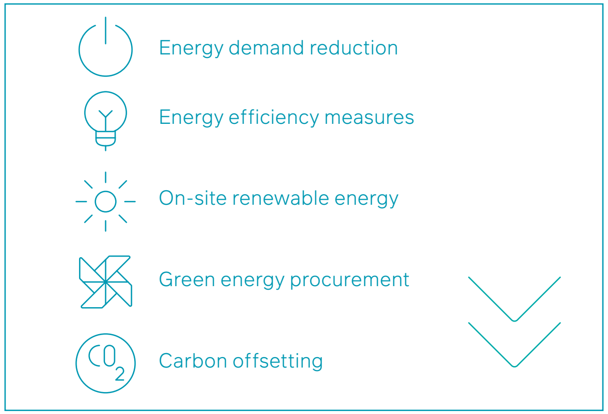
- highly efficient and meet certain thresholds of energy use
- be powered by renewable energy – either on-site or through renewable energy tariffs
- use carbon offsetting where emissions cannot be eliminated by the above.

To achieve Net Zero embodied carbon:

- reduce embodied carbon in developments and refurbishments
- use carbon offsetting where emissions cannot be eliminated by the above.

We apply an energy hierarchy approach, where we look to prioritise energy efficiency improvements before investing in on-site renewables and green energy procurement. Only unavoidable emissions are offset through rigorously assessed offset schemes.

Our energy hierarchy approach



Our approach to embodied carbon continues to develop, as witnessed across the industry. In essence, we explore the benefit of retrofitting, and where it makes sense to do so, reusing existing structures and buildings rather than constructing new. We aim to use materials with low carbon impact and encourage tenants to do the same. Lastly, we aspire to design buildings in a way that allows elements to be more easily upgraded, replaced and recycled.

Case study

Modern energy solutions

Forward funded by M&G, Castle Park View in Bristol has been designed around the principle of using and sharing sustainable energy sources. It benefits from a new district heating network, powered by a large-scale water source heat pump that draws water from the nearby harbour – the country's largest project of its kind and a key component of Bristol's 2030 Net Zero Carbon plan. Heat is produced by a central plant and supplied to buildings throughout the city, allowing for improved efficiency over a series of localised boilers. This provides low carbon, cost-efficient heat and hot water for residents.

Renewable energy is generated on-site through almost 200 photovoltaic roof-mounted solar panels which convert sunlight to electricity, powering the building's communal areas. The ability to tap into this resource equates to carbon savings of around 20% versus regular electricity sources. Other energy-saving measures include the installation of energy efficient lighting and high performing appliances in each apartment, contributing to an Energy Performance Certificate rating of B. Smart meters further help to manage energy use, while helping residents to curb costs.

Applying our goals to our investment strategies

Well managed climate transition risk, alongside other market factors, can enhance both occupational and capital market potential for our assets. This reduces the risk of long-term obsolescence.

In this sphere, our investment priorities for climate transition have focused on the below:

Understanding what needs to be done

Asset acquisitions are conducted through a lens of Net Zero potential. Alongside standard market risks, potential acquisitions should demonstrate an understanding of transition risk for approval by the M&G Real Estate's Investment Committee.

Data monitoring and reporting

We prioritise the collection of high quality data to track energy consumption, emissions and sustainability performance across our portfolio. We invest in smart metering and portfolio software to allow us to report progress on emissions reductions transparently to our stakeholders.

Energy efficiency and retrofits

We prioritise energy efficiency improvements in existing buildings through retrofits. This includes installing energy efficient lighting systems and optimising building management systems; heating, ventilation and air conditioning systems; insulation; and windows.

Sustainable design and construction

We emphasise sustainable and green building design principles for new developments. This includes using eco-friendly materials, passive design strategies and circular economy principles. Additionally, we seek green building certifications such as BREEAM, NABERS and LEED to validate our sustainability efforts.

Tenant engagement

We engage with our tenants on ways we can work together to reduce energy demand and increase the use of renewable energy at our assets. Many of our tenants have their own operational Net Zero aspirations, and by working together, we can achieve our joint goals in the most economically effective way.

Renewable energy integration

We invest in on-site renewable energy sources, such as solar panels, to meet a portion of a property's energy needs.

Enhancing asset returns by applying Net Zero principles

Scope	Description
Lower operating costs	Energy efficiency improvements that lead to reduced energy consumption contribute to lower operating costs for tenants, keeping service charge budgets down
Higher rents and occupancy rates	High quality energy efficient accommodation is sought by occupiers, leading to stronger occupancy compared to less efficient competition
Value protection and enhancement	Investors are increasingly considering energy efficiency as part of their acquisition due diligence. Additionally, RICS-issued Guidance Note, 'Sustainability and ESG in commercial property valuation and strategic advice', encourages valuers to take relevant sustainability factors into account
Renewable energy integration	Investing in on-site renewable energy generation opens the possibilities of selling energy to both tenants and back to the grid, creating additional revenue streams
Sustainability-focused financing	Green bonds and sustainability-linked loans can offer favourable terms for energy efficiency projects
Green Building Certification	Whilst not directly linked with Net Zero, buildings with higher energy efficiency using sustainable energy sources are linked to stronger certification, enhancing the asset's leasing potential and safeguarding against long-term obsolescence

Source: M&G

Decarbonising real estate

The Rio building, Paris

ESG credentials are a major driver of our investment decisions. Acquired in 2022 following a rigorous due diligence process, modelling shows that carbon emissions associated with operating this building are well below the Paris-aligned industry targets. The building reflects a BREEAM Excellent rating as well as the highest WiredScore certification for wired infrastructure.

40 Leadenhall, City of London

40 Leadenhall, City of London – The 900,000 sq ft landmark office building is being developed with ESG at the forefront. It will be one of the first buildings in the UK to achieve NABERS[18] certification, reflecting the building's energy efficient design as well as optimum performance in use. Features include LED lighting and occupancy sensors alongside efficient fan coil units that help to reduce energy demand. As well as beating the government's performance benchmarks for Net Zero, carbon emissions will be 40% lower than the Buildings Regulations baseline. 40 Leadenhall is targeting BREEAM Excellent standard, a WELL Platinum rating as and is aspiring to Platinum Wired and Smart Building certifications.

The Jungmann building, Helsinki

The Jungmann building, Helsinki – In central Helsinki, we were able to preserve a landmark Art Nouveau building in the repositioning of a historic warehouse to 124 private rented and serviced apartments. This LEED Platinum rated property features a powerful cooling and heating recovery system, which captures and reuses waste heat to improve efficiencies.

[18]For more information about Nabers UK visit: https://bregroup.com/products/nabers-uk/

Heritage Lanes, Brisbane

Heritage Lanes, Brisbane – M&G's Heritage Lanes building embraces leading technology, sustainability and design to create a Net Zero in operation office development. This is supported by the reuse of rainwater for cooling and irrigation, alongside 129kW of solar energy generation. It holds 6 Star NABERS certification and was also recognised in the 2023 UDIA Queensland Awards for Excellence as the city's Project of the Year.

The Capitol, Aberdeen

The Capitol, Aberdeen – The city's former Art Deco theatre and music venue has been extensively refurbished to create sustainability-led office space; certified BREEAM 'Very Good'. Awarded City Regeneration Project of the Year award in the Scottish Property Awards, the 70,000 sq ft building provides flexible work space as well as facilities that promote green commuting, including electric vehicle charging points, bike racks and changing rooms. An automated building management system for energy efficiency control optimises the building's operational performance, while helping occupiers to meet their own carbon targets.

The Rock, The Hague

The Rock, The Hague – M&G's forward funding of 296 homes in Binckhorst will aim to provide affordable, sustainably-designed accommodation for students and professionals. The climate-neutral building incorporates a smart thermal grid that exchanges heat and cold between local sources and multiple buildings to supply low carbon heating and cooling. The building also benefits from ground water sources combined with electric heat pumps, which use sustainable energy sources.

Progress against our goals

1. Establishing our baseline to measure progress

Goal: By 2022, establish a full carbon footprint for all funds

2022-3 Progress

A full greenhouse gas footprint has been calculated for every fund for the year 2022. This covers Scope 1 and 2, and all material Scope 3 emission activity relating to all direct investments. Our GHG footprint is produced in accordance with the GHG Protocol Corporate Accounting Standard; the emission boundary is established using the principle of operational control and is consistent with standard industry practice (GRESB). GHG reports are produced on an annual basis by a third party environmental data specialist, Evora Global Ltd, and included in the funds' annual Financial Statements which are shared with our investors.

2024 Roadmap

With the baseline consumption and emissions roadmap in place, we are equipped to record and monitor our progress towards our goal of a Net Zero portfolio by 2050.

Our preferred method of monitoring is the Carbon Risk Real Estate Monitor (CRREM) risk assessment tool, applied at asset level with results aggregated to fund and house level. This approach supports our organisational level commitments such as NZAMI, NZAOA and of course the BBP Climate Change Commitment.

Efficient systems of monitoring and tracking progress are essential. We continue to invest in software-based tracking solutions as we believe that robust, accessible and good quality data is a key component of a successful Net Zero journey.

2. Improving our data

Goal: By 2024, establish real data coverage of 75% across all funds, rising to >90% by 2028

2022-3 Progress

There remains a real difficulty collecting utility data from properties controlled by tenants. This is especially difficult at retail and industrial sites with multiple tenants, where obtaining such information can take weeks, and is often unsuccessful.

To address this challenge, M&G Real Estate is working with Arbnco, which has developed an intelligent software platform that can assimilate electricity and gas meter readings from any meter in the UK. This enables us to not only automatically track and report on energy consumption and carbon emissions for whole buildings, but also target reduction opportunities. As a result of this initiative, the coverage of energy data across our UK industrial portfolio has more than doubled between 2021 and 2022. Over the past 12 months we have linked over 200 tenant metres to this solution across over 30 sites in the UK, and are looking to roll this out to more complex, multi-tenanted sites in the coming year.

2024 Roadmap

Capturing accurate data for the whole building remains a challenge in many markets due to awareness, cultural, and data privacy factors. This means operational building performance is often based on estimated rather than actual data, drawing on relevant industry benchmarks. Often, when data is available, it comes with a significant time lag.

Frequent and timely data provides additional insight into how our buildings operate in reality and better informs where we can encourage reductions in energy demand and emissions savings. We encourage our occupiers to share in understanding the facts around our Net Zero journey by implementing data sharing clauses in our green leasing model and acquiring permission to collect utility data via a signed Letter of Authority.

Our goal for 2023-4 is to continue making progress in installing automated solutions in our buildings, working with our occupiers to educate and share the benefits of timely, frequent data.

3. Fund-level Net Zero pathways

Goal: By 2023, develop fund-level Net Zero pathways with specific interim targets

2022-23 Progress

We have undertaken third party top-down Net Zero analysis for our largest funds, with 63% of AUM (including cash, as of June 2023) to be covered by a costed top-down pathway by the end of the year.

Additionally, 49 assets have been subject to a third party Net Zero Carbon pathway audit during the same period.

2024 Roadmap

Where fund-level Net Zero pathways have been produced, these will need to be refreshed with the latest version of the Climate Risk Real Estate Monitor (CRREM) decarbonisation trajectories, which were revised in 2023. We will also be undertaking third party top-down Net Zero analysis for any remaining funds where these have yet to be completed.

With several fund-level Net Zero pathways in place, we are now testing assumptions at an asset level by undertaking Net Zero carbon pathway audits on our largest and highest emitting assets. We have established a programme to roll out costed Net Zero asset pathways, facilitating clearer investment decision making and to identify assets that are at risk of stranding.

Where the cost of transitioning an asset has been estimated, the 2024 sustainability action plans incorporate energy reduction improvements such as building management system optimisation and replacement LED lighting. Longer-term planning for larger capital expenditures such as replacement of fossil fuel heating systems have also been factored in alongside key intervention points such as lease expiry/renewal, planned refurbishments, redevelopments or maintenance and end of life of major plant.

4. Occupier engagement

Goal: From 2020, engage with occupiers to collect data and understand their Net Zero carbon plans

2022-23 Progress

We recognise that pursuing our Net Zero pathways is a collaborative effort between ourselves, our tenants and our suppliers. To achieve our goal in the timeliest and most cost-effective way, efforts must be jointly agreed.

An important part of this is engaging with our customers to work together to improve the performance of the buildings they occupy. As such, we continue to introduce green lease requirements within our lease agreements, which facilitate greater collaboration and sharing of data.

We have begun integrating requirements into service level agreements with our operating partners, which includes external property and facilities managers. This helps ensure that they are supporting us to achieve our Net Zero ambitions through the services they provide, the day-to-day decisions they take at our buildings, and their interactions with our tenants on site. In 2022, property managers held a reusable water bottle campaign across key assets in our UK portfolio and surveyed customers about the sustainability (including energy and carbon saving) measures they would most like to see introduced at their premises.

We also actively engage FRI[11] and long income occupiers that control their assets, to understand their Net Zero commitments and where these align with our own ambitions, to progress initiatives that help to reduce their emissions and encourage the sharing of energy data.

2024 Roadmap

We will prioritise engaging with occupiers across our portfolio, focusing on where there are opportunities to agree energy performance improvements in a structured way, through green leases or incentives. Through this programme, we will encourage the sharing of energy data and the switch to renewable energy tariffs, while also highlighting opportunities for energy and carbon savings through retrofit and behavioural interventions. Where appropriate, we will offer financial incentives to occupiers through green leases and other mechanisms to address energy and carbon intensity.

Given that tenants are a major source of emissions, we will continue to review and develop green clauses that support our Net Zero ambitions and incorporate these into M&G's standard lease template. As a minimum, we will be looking to ensure all new leases and lease renewals include a clause to collect occupier energy consumption data. This will give us a complete picture of how our assets perform, and the insight necessary to identify and target meaningful reduction strategies.

[19] A full repairing and insuring lease means the tenant is responsible for the cost of all repairs and upkeep of the property and also the cost of buildings insurance.

5. Sustainable Development and Refurbishment Framework

Goal: In 2022, update our Sustainable Development and Refurbishment Framework with operational and embodied carbon targets. By 2032, evidence reductions in embodied emissions. By 2048, all development and refurbishment activity to reflect Net Zero whole life carbon

2022-3 Progress

M&G Real Estate worked with Arup Group to create a Sustainable Development and Refurbishment Framework. The Framework prescribes minimum standards and aspirational targets for a range of ESG issues, including operational carbon, embodied carbon performance and physical resilience in the development of new assets as well as for refurbishment to existing assets. The Framework is now being applied to all funded development activity.

For direct developments where we employ the design team and contractor directly, we are better able to drive achievement of these requirements. However, for funded developments, we often have less ability to influence outcomes or are not involved early enough. In these instances, we strive to engage external development managers and mandate them to deliver schemes that at least exceed planning requirements.

2024 Roadmap

The Sustainable Development and Refurbishment Framework is a complex, technical tool used to implement requirements once projects are live. To help everyone better understand our ESG ambitions from the outset, we will be producing a user-friendly communication document to accompany the Framework. This will clearly articulate to developers and contractors working on our behalf, our requirements and expectations in a more accessible way. It will be circulated to all stakeholders and integrated within design and construction contracts.

We will also be introducing a scorecard and ongoing monitoring of developments to ensure our developments adhere to the requirements and targets set out in the Framework. This means performance of the development pipeline will be measured against targets on an ongoing basis, at project gateways and at various key stages, providing early visibility of projects that are not on track and enabling necessary action to be taken.

Where we are positioned to offset development-related emissions at project completion, we will develop an offsetting policy to ensure options are credible, verifiable and demonstrate additionality.

Case study

Capturing data

In 2021, we entered into a collaboration with Hello Energy, a tech solution focused on creating information-rich buildings via tenant engagement. Since then, we have automated the collection of energy data across 77 buildings in 11 countries, providing performance insights in some buildings and targeting stakeholder engagement in others. Notably, at our 7even building in Amsterdam, Hello Energy's smart software supports residents in all 90 apartments, providing individual logins so they can monitor their electricity usage. It also showcases the impact of key sustainable initiatives at the site, such as solar panel-generated energy, on a screen in the lobby. This not only encourages residents to live sustainably but also facilitates comprehensive ESG reporting with 100% of electricity data collected in a highly automated way.

Case study

Sustainable design and construction

Our Tottenham Court Road office development, The Fitzrovia, demonstrates a clear focus on sustainable design and procurement at every stage of the project. Due to complete in Q3 2024, modern methods of construction and digital solutions will optimise programme time without compromising on quality. For example, an offsite construction approach and innovative building materials will be used to optimise prefabricated components. This approach will provide significant sustainability benefits for the local community by reducing the amount of carbon used in the build programme while minimising waste on site and the number of deliveries required.

Physical risk

Expectations are increasing for the disclosure and management of climate risks. As a listed entity, M&G plc is required to prepare a report aligned to the Global Task Force on Climate Related Financial Disclosures (TCFD) standard.

For funds managed by M&G Real Estate, we have been reporting in line with the TCFD recommendations since 2021 and include this within the annual Fund-level Financial Statements, giving investors transparency around exposure to climate risk and our plans to address this.

It is essential that the investment portfolios we manage are adapted to operate in a world in which climate-driven disruption becomes increasingly normal. M&G Real Estate has taken steps to understand exposure to these risks in the portfolios we manage. Insurance and risk specialists, Marsh, modelled the financial impact of seven climate-related hazards[20] over different time horizons and climate warming scenarios.

The analysis, covering 846 direct assets, shows that flooding risk is most material for the portfolios we manage. The impact is modest over a short-term horizon, with just 5% of the portfolio categorised as considerable risk today. Over time and under worst case scenarios the potential financial cost of damage becomes more pronounced but is still relatively small across the whole portfolio.

We already incorporate a degree of flood risk review within our standard technical due diligence process for new acquisitions and are developing our approach to manage the risks identified in our existing portfolio through asset-level adaptation plans. We will also consider flood risk in our long-term strategy for sites rated as medium- or high-risk by our initial modelling analysis.

Total assets modelled

846

(M&G insert assets modelled as % of AUM)

Global average assets exposure to climate hazards

Size of circle is proportianate to the proportion of assets defined as at high risk of damage resulting from climate hazards, at each time interval

	Current	2050	2100
Orderly (RCP 2.6) % Portfolio higher risk	**5.2%**	**5.4%**	**8.2%**
Hothouse (RCP 8.5) % Portfolio higher risk	**5.2%**	**6.0%**	**10.8**

Asset exposure to climate hazards is assessed based on a range of scenarios. All results presented in the figure above are based on the Marsh model and on assets under management as of 31 December 2022.

RCP stands for Representative Concentration Pathways which refer to how much greenhouse gas concentration will be present in the atmosphere under a scenario that aligns to the Paris Agreement (2.6°C) versus a hot house world scenario (8.5°C). Assets with high-risk exposure to future climatic conditions are those where expected cost of physical damage exceeds 1% of the asset's reinstatement value.

[20]The model looked at surface water and riverine flooding, coastal inundation, soil movement, extreme wind, wind fire, freeze-thaw, and extreme heat.

Challenges

Delivering Net Zero Carbon requires us to reconsider our approach to investment asset management and development. While there is a significant effort underway to transition the sector towards Net Zero, significant challenges remain, which are highlighted below. We continue to engage with our partners and industry groups to resolve them.

1	**Accessibility to performance data**	Tenants often procure their own energy, and landlords have no oversight of contracting or usage data. When real data is not available, parts of our carbon footprint are estimated using benchmarks. We continue to rely on strong occupier and asset manager engagement, proactive implementation of green lease clauses and the use of data acquisition technologies to automate and reduce human error. While these elements help, there is an ongoing challenge to obtain data from tenants, which creates an administrative burden. Gap-filling is therefore necessary, but estimation techniques and benchmarks vary considerably and can make a material difference to performance.
2	**Collaboration with key stakeholders**	The decisions and actions our stakeholders take at an asset level can have a major influence on the emissions arising from our portfolio. Yet the tenured nature of properties means that we do not have full control over our emissions and the operating practices and behaviours that can reduce these. In many cases, we have limited control and influence over our forward funding deals, tenant-managed assets and joint ventures. Our approach is therefore collaborative, and as such, working with our tenants, suppliers and contractors is a key feature within our Net Zero Carbon strategy.
3	**Embodied carbon**	Our understanding of our embodied carbon impact is more limited compared to operational carbon. We are still in the initial stages of establishing a reliable baseline and consistent ways to measure and assess construction carbon impacts. We continue to set and review embodied carbon requirements for new developments and refurbishments and seek to engage suppliers of key materials.
4	**Evolving definitions**	The definition of Net Zero Carbon in real estate is continuously evolving. There remains confusion and uncertainty surrounding what the term 'Net Zero Carbon' means, serving to limit action. We continue to actively engage with industry bodies on this topic.
5	**Commercial viability**	The cost of delivering Net Zero Carbon may be commercially challenging for some assets. Investment managers will need greater clarity on who should bear responsibility for operational emissions and how costs should be fairly attributed between landlords and their tenants.
6	**Lack of design control**	We often forward fund new developments and have limited control over the design of these. We are exploring how we can best influence the embodied and operational carbon in these cases.
7	**Regional inconsistencies**	Our real estate business is global and diverse. At present, huge regional variations exist across markets when it comes to laws, standards and decarbonisation capabilities. This means some regions will continue to advance ahead of others and that a unified global strategy will be challenging to deliver.

Considerations in offsetting

The primary focus of our Net Zero Carbon strategy is to reduce our carbon emissions as much as possible. It is highly likely however, that when we have completed all possible works, there will remain some residual carbon emissions that we are unable to eliminate. It is these residual emissions that we intend to offset. To do so, we will need to identify appropriate and credible offsetting schemes for purchase and offset on the voluntary market in 2050 (and ongoing) to reach Net Zero across all direct investment portfolios. Before 2050, we will be reviewing offset opportunity where regulation or other local market requirements demands the use of offsets, and exploring what approach M&G Real Estate needs to take to deliver a viable and transparent offset strategy.

There are still greenwashing concerns surrounding voluntary carbon offsets and the industry has yet to agree on the criteria for 'quality' offsets. We recognise that the topic is fast evolving. We are actively engaged in industry discussion via the UK Better Buildings Partnership Net Zero Working Group and the Urban Land Institute's Sustainability Committee. To have confidence that offsets are high quality, we intend to align our long-term offsetting strategy with best practice guidance which is likely to include the following considerations:

- Purchased through an established and certified carbon offset provider.
- Where possible, prioritise the use of carbon removal offsets over carbon avoidance.
- Lead to permanent removals (ie, the offsets must be active on the same timescale as CO_2 in the atmosphere (c. 100 years).
- Offsets should be independently verified, transparent and traceable.
- They are additional (ie, GHG reductions provided by the project would not have happened anyway).
- Claims are not double counted (ie, the offsets must not be claimed by another company).
- Where possible, support offsetting projects located close to where the emissions have been created.
- They are not overestimated (ie, organisations follow good greenhouse gas accounting practices to ensure schemes are proportionate).
- Projects do not cause wider harm (ie, projects should not significantly contribute to social or environmental harms).

We want to ensure teams are incentivised to minimise emissions across our value chain prior to carbon offsetting. We will explore the use of an internal carbon pricing mechanism, levied on each tonne of embodied carbon, which will seed fund investments in energy efficiency improvements. The primary focus of a carbon price would be to encourage and incentivise the reduction in embodied carbon for all new developments. Although we already measure and monitor embodied carbon in development and refurbishment projects using M&G's Sustainable Development and Refurbishment Framework, challenges remain when it comes to capturing accurate carbon data associated with key materials and from manufacturers and the supply chain.

Case study

Offsetting activity in practice

The development of Brackmills Industrial Estate in Northampton, UK consists of three units totalling 820,000 sq ft located within the Golden Triangle, an area in the East Midlands renowned for its high density of distribution facilities and access to the UK's motorway network. The asset – completed in December 2022 – has been designed to meet best-in-class sustainability criteria, delivering a BREEAM rating of Outstanding and an EPC A+ certification. The design incorporates extensive electric vehicle charging provision, solar-ready warehouse roofs, rainwater harvesting and a solar thermal hot water system in response to growing occupier appetite for the very latest in renewable energy and eco-focused technologies.

Following all efforts to reduce carbon impacts, the residual carbon value was offset and retired with credits purchased through a Verified Carbon Standard. The process and type of offsets purchased meant the completed development achieved Net Zero carbon in Construction[21] status using the UK Green Building Council's Framework.

[21]Offsets were purchased equalling total carbon emissions reported from the modelling in tonnes CO2eq for both the construction stages (modules A1-A5).

Roles and governance

M&G's Real Estate business is supported by a dedicated sustainability team that acts as a centre of excellence and expertise that engages with senior decision makers, including our portfolio management team, to set and make recommendations on the implementation of ESG strategy. However, delivery and implementation remain devolved to the business and individual teams. The responsibilities and actions of many stakeholders are critical to the success of M&G's Net Zero Carbon programme. Everyone is expected to play their part and to take responsibility and ownership within their day-to-day work. The following are some of the key stakeholder groups and their relevant responsibilities:

The ESG team

- Responsible for defining and setting Net Zero Carbon goals, requirements and priorities and sharing best practice, toolkits and training to teams.
- Reviewing, monitoring and communicating progress to asset managers, fund managers, senior management and investors.
- Tracking and comparing asset performance using scorecards, and advising asset/property managers on initiatives to progress.
- Evaluating and comparing various and competing solutions, and advising teams on best value for money.
- Supporting teams in shaping Net Zero requirements and standards, and incorporating these into the contractual service agreements of our external partners.
- Selecting a global, centralised ESG data platform and data improvement strategies.
- Developing house views and policies on cross cutting themes such as offsetting.

Fund managers

- Responsible for approval of fund-level Net Zero targets and for the achievement of these. This includes communicating capital constraints or portfolio changes that may impact achieving Net Zero goals and considering Net Zero requirements and carbon stranding risks when acquiring, developing or disposing of assets.
- Approve budgets and capex to support the transition to Net Zero Carbon including energy efficiency projects and Net Zero audits as well as the creation of fund-level Net Zero pathways.

Asset managers

- Responsible for achieving progress at an asset level and integrating costed Net Zero improvements into asset management plans.
- Provide guidance on asset list for Net Zero Carbon/energy audits and suitability.
- Oversee activities with technical consultants and property managers, ensuring recommendations such as smart optimisation and solar photovoltaics are implemented.
- Internal asset managers communicate expectations with property management and closely monitor the performance of property managers and technical consultants that are implementing initiatives and managing sites.
- Key touchpoint with tenants, actively engaging with them to encourage them to act, share data and sign green leases.
- Take ownership for maintaining key asset level information (EPCs, Green Building Certificates etc) and for co-ordinating and reporting implementation of key initiatives to stakeholders.

Property managers

- Property management agents are selected following a rigorous process that incorporates ESG considerations, while Net Zero requirements are included in their contractual service agreements.
- Their responsibilities include refurbishment and development, utilities measurement and reporting, engaging with tenants and the community, implementing ESG business plans, quarterly monitoring of progress against targets, and driving, monitoring and targeting energy control in buildings.

Development team

- Working with the ESG team to create robust embodied and operational energy targets and procedures for development and major refurbishment and forward funding deals. Ensuring these are integrated from concept design through to design and construction contracts
- Tracking projected carbon performance of the development pipeline against core requirements on ongoing basis, at project gateways and at key project stages of inflight projects
- On forward funding deals, where we have limited control over the design, development teams seek to influence the embodied and operational carbon where possible

Transaction team

- The team is responsible for integrating ESG criteria, along with Fund and ESG Team input, throughout the due diligence process
- Evaluating new acquisitions in the context of carbon transition risk and the Net Zero Carbon goals of M&G Real Estate and individual funds
- Estimating capital expenditure requirements for aligning assets with Net Zero ambitions
- Ensuring completion of ESG acquisition risk screening and incorporating the findings in the Property Investment Committee Paper

A strong governance structure is important for monitoring and accountability for delivery of our Net Zero Carbon pathways. Our Global Sustainability Forum, a committee comprised of representatives from key areas of M&G Real Estate, oversees our sustainability activities and the delivery of these pathways. This provides a sounding board for our environmental initiatives and ensures that key projects and best practices are embedded throughout our activities.

A separate ESG Working Group meets monthly to oversee the integration of environmental and social factors across the asset management business. The working group consists of key asset and portfolio managers and includes the ESG team. Workstream leads are appointed to accelerate delivery in key programmes such as renewable projects, electric vehicle chargers, smart building solutions and energy efficiency.

M&G Real Estate's ESG team has the overall responsibility for monitoring the progress of the programme. Our quarterly environmental performance reports enable our investment managers to identify carbon risks in the assets we manage.

We continue to explore ways in which we can up-skill all teams on ESG issues, with particular focus on climate risk. We have delivered presentations on Net Zero to portfolio management teams, the wider real estate business, and colleagues in our Singapore office. ESG integration is a business objective and forms part of our employee objective and appraisal process for all investment professionals within M&G Real Estate.

Scope and boundaries

Business area	Sub-area	GHG protocol reporting category	Emissions scope	BBP climate change commitment	M&G Real Estate commitment
Direct real estate holdings (including JVs with management control)	Landlord-purchased energy (electricity and fuel)	Purchased electricity, heat and steam and associated transmission and distribution losses	1, 2, and 3	✓	✓
	Tenant-purchased energy (electricity and fuel)	Downstream leased assets	3	✓	✓
	Landlord refrigerants	Purchased goods and services	1	✓	✓
	Tenant refrigerants	Tenant Scope 3	3		
	Landlord-purchased water	Purchased goods and 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		
	Visitors transport emissions	Tenant Scope 3	3		
	Tenant supply chain emissions	Tenant Scope 3	3		
	Landlord-purchased capital goods and services (Mechanical & Engineering and property management services)	Purchased goods and services	3	✓	✓

Business area	Sub-area	GHG protocol reporting category	Emissions scope	BBP climate change commitment	M&G Real Estate commitment
Investments (indirect real estate holdings eg, where investments are managed by a third party such as JVs with no management control or investments in other real estate investment vehicles)	Landlord purchased energy (electricity and fuels)	Investments (proportional to the investment)	3	✓	✓
	Tenant purchased energy (electricity and fuel)	Investments (proportional to the investment)	3	✓	✓
	Landlord refrigerants	Investments (proportional to the investment)	3	✓	✓
	Tenant refrigerants	Tenant Scope 3	3		
	Landlord purchased water	Investments (proportional to the investment)	3	✓	✓
	Tenant purchased water	Tenant Scope 3	3		
	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 and services (M&E and property management services)	Purchased goods and services	3	✓	✓

Business area	Sub-area	GHG protocol reporting category	Emissions scope	BBP climate change commitment	M&G Real Estate commitment
Development	New development (including those where funding is being provided)	Purchased goods and services	3	✓	✓
	Refurbishments	Purchased goods and services	3	✓	✓
	Fit-out (landlord controlled)	Purchased goods and services	3	✓	✓
	Fit out (tenant controlled)	Tenant Scope 3	3	✓	✓
	End of life	End of life treatment of sold products	3		
Corporate	Head office energy use	Company facilities	1 and 2		M&G plc commitment
	Company vehicles	Company vehicles	1		M&G plc commitment
	Business travel (excluding commuting)	Business travel	3		M&G plc commitment
	Purchased goods and services	Purchased goods and services	3		M&G plc commitment
	Operational waste generated	Waste generated in operations	3		M&G plc commitment
	Operational water use	Purchased goods and services	3		M&G plc commitment
	Employee commuting	Employee commuting	3		M&G plc commitment

Glossary

AUM Assets under Management

BBP Better Buildings Partnership

BREEAM Building Research Establishment Environmental Assessment Method

CRREM Carbon Risk Real Estate Monitor

Embodied Carbon Carbon emitted during the construction phase

EPC Energy Performance Certificate

GHG Greenhouse gases

GRESB Global Real Estate Sustainability Benchmark

GWh Gigawatt hours

Heat Pump Captures heat from outside and transfers it inside

HVAC Heating, Ventilation and Air Conditioning

IPCC Intergovernmental Panel on Climate Change

kWh Kilowatt hours

LED Light Emitting Diode

LEED Leadership in Energy and Environmental Design

MWh Megawatt hours

Operational Carbon Carbon emitted whilst property is in use

PV Photovoltaic (convert light into electricity)

RCP Representative Concentration Pathways

REEB Real Estate Environmental Benchmark

SBTi Science-Based Target initiative

TCFD Task Force on Climate Related Financial Disclosures

tCO_2e Tons of carbon dioxide equivalent

UKGBC The UK Green Building Council

Zero Whole Life Carbon When both embodied and operational carbon are Net Zero

www.mandg.com/institutional

Please note that this website has not been reviewed by the SFC and will contain information about funds that are not registered with the SFC.

M&G Investments