



Climate Report 2024

Task Force on Climate-Related Financial Disclosures

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Foreword



Barry O'Dwyer

Group Chief Executive Officer

At Royal London, we are committed to helping customers protect their standard of living. This includes playing our part in moving fairly to a sustainable world.

As climate change continues to affect communities globally, the financial services sector has a role to play in helping society mitigate and adapt to its impact. Our business has a responsibility to manage climate-related risks and opportunities on behalf of our customers and clients, as stewards of their investments.

As the UN Principles for Responsible Investment (UN PRI) recognise, our industry cannot deliver the transition to net zero alone¹. In the absence of commercially viable breakthroughs in climate mitigation technology, we rely on governments, policymakers and regulators to establish rules that support global climate ambitions, and to deliver their own commitments. Without a consistent approach from policymakers, financial institutions cannot achieve the ambitions they have set. During 2024 and early 2025, significant shifts in the geopolitical landscape — including growing scepticism among some politicians around the urgency of climate action — have led some global companies to signal a dilution of their commitments.

I am proud of how Royal London continues to have constructive dialogue on climate with policymakers and investee companies. As the UK focuses on economic growth, the transition to net zero should be part of our national plans — and we have encouraged the UK government to demonstrate leadership on climate change. Our Asset Management business has also continued to prioritise engagement with the highest emitting companies in its portfolio, supporting the development of credible climate transition plans.

Having a sense of responsibility to customers is inherent to a mutual. With climate-related impacts on society likely to increase, we believe that a just transition to a low-carbon economy will help customers protect their standard of living and build their financial resilience.

1. UN PRI, 2024. [Climate Policy Roadmap 2024/25](#).



Joanna Walker

Head of Group Sustainability and Stewardship

Tackling climate change requires everyone to take action, including the financial services industry. We all have a role to play in finding solutions.

We believe that we will generate better outcomes for customers if we play our part in the transition to a low-carbon economy. Over the past year, geopolitical uncertainty has influenced the global conversation on climate change. We continue to ensure that our climate strategy, and our engagement activity, prioritises customers and clients' needs.

We view engagement as an important tool for encouraging the net zero transition. As an asset owner, we inform our key asset managers of the engagement themes that we want them to prioritise. Through voting, we encourage the companies we invest in to support long-term change. Our Asset Management business, which manages 95% of our customers' assets, held 263 climate-related engagements with investee companies and voted at more than 3,500 meetings during 2024.

As we deliver our climate strategy, we remain dedicated to high standards of transparency. This report shares our progress in 2024 and the governance that supports our approach. In 2025, we also published detail of how our UK business and Asset Management business implement our new Group-wide Responsible Investment and Stewardship Policy, which describes the standards to which we hold ourselves and our external asset managers accountable. Our Climate Transition Plan, published in June, outlines our key strategic focus areas for 2025 and beyond.

The path to net zero is complex, but we remain committed to playing our part in supporting real-world change that benefits our customers and clients as well as wider society.

Introduction

Our business

Royal London is the UK's largest life, pensions and investment mutual¹. We offer protection, long-term savings and retirement solutions for customers in the UK and Ireland, and asset management solutions for clients around the world:

UK

In the UK, we provide pension and protection propositions to customers, employers and pension scheme trustees, primarily through intermediaries.

Asset Management

Our Asset Management business, Royal London Asset Management, provides investment propositions to Royal London's life and pensions customers and to external institutional and wholesale clients, primarily through intermediaries.

Ireland

Royal London Insurance Designated Activity Company is our regulated Irish subsidiary. In Ireland, we provide pension and protection propositions to customers through brokers.

Our Purpose

At Royal London, we are driven by our Purpose:

'Protecting today, investing in tomorrow. Together we are mutually responsible.'

Our Purpose sets out the positive outcomes we want to achieve by using our mutuality for good:

- helping build financial resilience
- playing our part in moving fairly to a sustainable world
- strengthening the mutual choice for customers.

See [page 9](#) for more information on our Purpose.

Our climate commitments

Our climate commitments help us play our part in moving fairly to a sustainable world, while contributing to the effective management of climate-related risks and opportunities on behalf of our customers and clients. See [page 5](#) for an overview of our climate commitments and progress.

About this report

Royal London's Climate Report 2024 has been prepared in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) framework, in line with the Financial Conduct Authority's (FCA) Environmental, Social and Governance (ESG) sourcebook regulation (ESG 1A and ESG 2).

The disclosures in this report reflect the activities of the Royal London Group (also referred to as 'Royal London' or the 'Group'). The Group includes The Royal London Mutual Insurance Society Limited (RLMIS), which offers protection, long-term savings and retirement solutions, as well as the companies within Royal London Asset Management (RLAM). Our Asset Management business includes Royal London Asset Management Limited (RLAM Limited), RLUM Limited (RLUM) and Royal London Unit Trust Managers Limited (RLUTM).

As at 31 December 2024, RLMIS, RLAM Limited, RLUM and RLUTM were in scope of the FCA's ESG sourcebook regulation (ESG 1A and ESG 2). The respective entity-level TCFD disclosures are in Appendix I of this report, from [page 52](#)².

See Figure 1 for an overview of our in-scope Group structure.

In this report, we:

- detail how we identify, assess and manage climate-related risks and opportunities
- disclose the governance we have in place to manage climate-related risks and opportunities
- reflect on the progress we have made integrating climate-related risks into our wider strategic and risk management frameworks
- set out the areas where we will focus our efforts as we continue on the journey to achieve our Purpose.

Figure 1: Our in-scope legal entities (31 December 2024)



1. Based on total 2022 premium income. ICMIF Global 500, 2024.

2. Royal London Insurance Designated Activity Company (RLI DAC), RLMIS' Irish subsidiary, is not in scope of the FCA's ESG sourcebook regulations. As such, entity-level disclosures have not been provided for RLI DAC. Elements of RLI DAC are covered within the Group report, such as within operational emissions data, however these are not material to the Group.

3. These entities form our Asset Management business.

Introduction *continued*

Our climate commitments

Our Group's climate commitments, set in 2021, contribute to the effective management of climate-related risks and opportunities for our customers and clients. Our commitments are made at Group level and do not apply to all individual products and strategies because each will have different investment objectives (for details of a specific product, see the product prospectus).

Our commitments are based on the expectation that governments and policymakers will deliver on their commitments to achieve the goals of the Paris Agreement, and that the required actions do not contravene our legal and regulatory obligations to our members and customers. Our commitments include assets that are both controlled by RLMIS and RLI DAC and managed by RLAM. They exclude segregated mandates managed by RLAM on behalf of its external clients.

Further details of the basis and assumptions underlying our climate targets and metrics are provided on [page 40](#), and an explanation of GHG emissions scopes is on [page 48](#). We list our commitments and summarise our progress during 2024 in the table on this page.

	1 Engagement	2 Portfolio emissions	3 Climate-aware investment solutions	4 Operational emissions
Our commitments	We are committed to engaging with our stakeholders – including policymakers, the companies we invest in and our peers – to play our part in moving fairly to a sustainable world.	We are committed to reducing the emissions from our investment portfolio by 50% ¹ by 2030 as part of our transition to net zero by 2050.	We are committed to developing investment solutions that will enable our customers and clients to invest in the low-carbon transition.	We are committed to achieving net zero direct operational emissions by 2030 (Scopes 1 and 2) and net zero in our Scope 3 non-investment value chain by 2050 ³ . We will purchase 100% renewable electricity for our operations (Scope 2) by 2025 ⁴ .
Progress over 2024	We engaged with the UK government to help remove barriers to blended finance opportunities and long-term infrastructure investment. We helped industry bodies develop guidance on net zero transition strategies. Our Asset Management business engaged with 40 investee companies, representing 54% of its financed emissions. Read more on pages 16 to 18 .	As at 31 December 2024, the carbon footprint (Scope 1 and 2 tCO ₂ e/\$m invested) from our corporate fixed income and listed equity portfolio reduced by 19% from 2023 and 35% since 2020, our baseline year. Read more about our portfolio emissions on pages 19 and 41 to 47 .	We applied a low-carbon and governance tilt strategy ² to our Emerging Market equities fund. Most of the assets are within RLMIS portfolios, with the solution expected to reduce our carbon exposure. In addition, we developed our delivery and reporting plans for climate-aware investment solutions. Read more on page 20 .	As at 31 December 2024, our Scope 1 and Scope 2 location-based emissions reduced by 19% since 2023 and 68% since 2019, our baseline year. We also purchased 100% renewable electricity for our operations. Our non-investment value chain Scope 3 emissions have reduced by 4% since 2023, and by 47% since 2019. Read more about our operational emissions on pages 21 and 48 to 50 .

1. tCO₂e/\$m invested, relative to a 2020 baseline.

2. A 'tilt strategy' prioritises or de-emphasises the weight or amount held in certain stocks, based on ESG criteria.

3. tCO₂e, relative to a 2019 baseline.

4. See [page 48](#) for an explanation of GHG emissions Scopes 1, 2 and 3.

TCFD compliance summary

Our business

Structured around four thematic areas, the TCFD recommendations cover: governance, strategy, risk management, and metrics and targets. These areas are interrelated and supported by 11 recommended disclosures that help stakeholders understand how we consider climate-related risks and opportunities.

Following publication by the International Sustainability Standards Board (ISSB) of its first two Sustainability Disclosure Standards, International Financial Reporting Standards (IFRS) S1 and S2, and the transfer of TCFD monitoring responsibilities to the ISSB from 2024, we will continue to monitor regulatory developments regarding climate-related disclosures.

The table on this page shares where we report against each TCFD recommendation within this report for the Royal London Group. See [page 52](#) for a summary of the entity-level disclosures against the TCFD recommendations for each of our entities in scope of the FCA's PS 21/24 requirements.

	TCFD recommendation	Pages
Strategy	Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term	35-36
	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning	8-21
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	33-34
Governance	Describe the Board's oversight of climate-related risks and opportunities	24-25
	Describe management's role in assessing and managing risks and opportunities	26
Risk management	Describe the organisation's processes for identifying and assessing climate-related risks	31
	Describe the organisation's processes for managing climate-related risks	32
	Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management	30-32
Metrics and targets¹	Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	38-50
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	43, 50
	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	39, 43, 50

1. Portfolio climate data and metrics in the Royal London Group section of the report are based on RLMIS data. Data and metrics relating to RLAM Limited (which includes RLAM third-party clients), RLUM and RLUTM are provided in the entity-level sections in [Appendix I](#).

Strategy

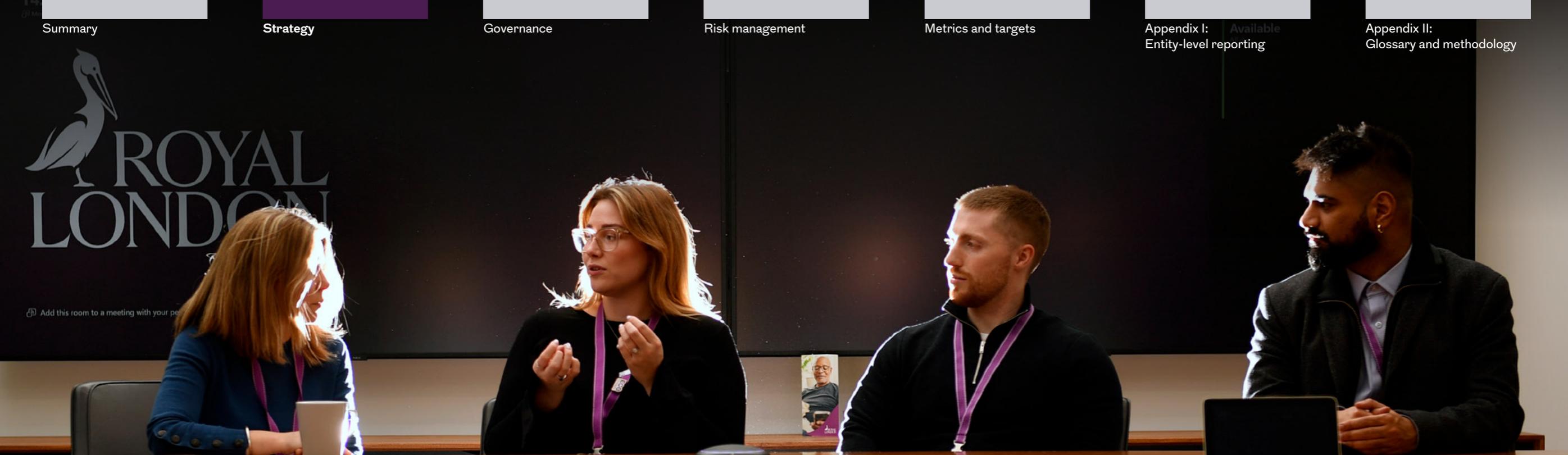
We want to play our part in moving fairly to a sustainable world. This is reflected in our strategy, engagement priorities and in the approach we take to shaping our culture.

In this section, we discuss:

- how we integrate climate-related risks and opportunities into our business and investment strategy
- how we engage with investee companies and wider stakeholders
- our climate commitments and the steps we are taking to meet these
- the expected effectiveness of our actions.



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Our strategy

Royal London approaches climate change by being clear and resolute in our long-term ambition, while recognising the need to adapt our focus in response to shorter-term challenges. We consider dual aspects when we think about climate change and how we play our part in moving fairly to a sustainable world:

- the impact that climate change may have on our business, members, customers and clients
- the impact we have on the climate.

These considerations help us to balance potential business opportunities with responsible mitigation and adaptation opportunities, while closely managing climate-related risks.

Our approach to integrating climate-related risks and opportunities into our strategy, investments and business planning:

Embedding sustainability across our business

To play our part in moving fairly to a sustainable world, sustainability must be embedded across our entire business. This includes managing climate risks and opportunities in aspects of our investment processes as well as embracing the influence we have as stewards of our customers and clients' investments. By following strong governance procedures to manage climate risks and opportunities alongside equipping colleagues with the right skillsets, we look to build a culture of sustainability. For further details, see [pages 10 to 14](#). For our governance approach, see [pages 24 to 27](#).

Our climate commitments

Our climate commitments contribute to the effective management of climate risks and opportunities, and help us to play our part in moving to a sustainable world. We are committed to achieving net zero emissions from our investment portfolio and operations by 2050, as well as developing investment solutions that enable customers and clients to invest in the low-carbon transition. We are also committed to advocating on climate-related issues by engaging with policymakers, companies in which we invest, our peers and others. For further details, see [pages 15 to 21](#).

The basis and assumptions underlying our climate targets and metrics are detailed on [page 40](#).

LONDON



Our Purpose outcomes

As a mutual, we generate value for our members, customers and wider society. We use our profits to improve our propositions and services for customers and financial advisers, to maintain our financial strength and to support social impact initiatives. We also share profits with eligible customers, boosting the value of their savings.

Our Purpose – *‘Protecting today, investing in tomorrow. Together we are mutually responsible.’* – drives our strategy and our long-term response to relevant customer and market trends. It sets out the positive outcomes we want to achieve by using our mutuality for good.

1. For an explanation of a just transition, see [page 16](#).



Helping build financial resilience

We aim to:

- ensure our customers do not have to worry about their finances in times of ill health or bereavement
- help customers to feel confident about making decisions on their long-term savings and investments
- help our customers to have sufficient savings to enjoy the retirement they planned
- maximise financial inclusion and reduce vulnerability by collaborating with charities and social enterprises.



Playing our part in moving fairly to a sustainable world

We aim to:

- be responsible stewards of the investments we hold for the benefit of our customers and clients
- provide opportunities for customers to use their investments to address environmental and societal challenges
- champion a just transition¹ and support communities to build resilience as they adapt to environmental challenges
- help build clarity on the role that Royal London and the wider industry can play in the net zero transition.



Strengthening the mutual choice for customers

We aim to:

- invest in improving our customer offering by running a profitable and sustainable business
- be cost efficient, so that customers receive the financial benefits of our mutuality
- offer a sustainable alternative to companies run for the benefit of shareholders
- do what is right for members, customers and for wider society.

Embedding sustainability across our business

Consideration of climate risks

RLMIS manages climate risks in aspects of our investment processes in collaboration with our Asset Management business, including by setting strategic asset allocations.

To help oversee aspects of climate risk, in particular transition risk¹, RLMIS monitors and assesses our asset managers' responsible investing activity and performance against the requirements of its Asset Manager Oversight Framework.

We also aim to develop investment solutions that will enable customers and clients to align their investments to the low-carbon transition. For further details, see [page 20](#).

Integrating ESG risks

Across our investment solutions, our Asset Management business typically considers a number of factors when analysing companies – including, but not limited to, company financials, operations, corporate governance, company strategy, market context and risks. Integrating ESG risks is not solely for the purpose of any explicit sustainability outcome, but to help us make informed long-term decisions based on a holistic view of the potential risks.

Strategic asset allocation

RLMIS' largest exposure to climate risks is the impact these may have on the assets we manage for customers and members. To help manage these risks and impacts, RLMIS has embedded climate risk evaluation into the strategic asset allocation process. This includes:

- reviewing the strategic asset allocation against at least two climate change scenarios to understand our exposure to the associated risks
- assessing the carbon emissions of the existing and alternative strategic asset allocation proposals to determine the impact any change might have on meeting our emission reduction targets.

Our Asset Management business

RLAM, our Asset Management business, plays an important role in helping us achieve our climate and financial resilience goals, as well as the goals of its external clients. RLAM is a significant part of the Group, managing over 95% of RLMIS assets as well as £56.9bn² of assets on behalf of its external clients.

A Group-wide perspective on stewardship

Collaboration between RLMIS and our Asset Management business helps us to influence the companies we invest in and the wider industry, as well as supporting our Group's Purpose. Royal London's Responsible Investment and Stewardship Policy sets out the standards that apply across our Group, including in our Asset Management business, in relation to responsible investment and stewardship. We have published how [RLMIS](#) and our [Asset Management business](#) implement this policy on our websites.

Asset manager selection

When selecting and considering whether to adopt new external asset managers, RLMIS – as an asset owner – has a formal assessment covering its standards, expectations and requirements. One part of this assessment asks asset managers to outline their responsible investment and climate change activities. They complete a due diligence questionnaire to provide a baseline assessment against a range of ESG topics aligned with our Group's Responsible Investment and Stewardship Policy, including exclusions, voting, engagement, ESG integration and climate change factors.

Before they are selected, asset managers who manage over £100m each on behalf of RLMIS, and our Matrix fund³ asset managers, are required to be signatories to the UK Stewardship Code 2020 and the UN PRI. To ensure alignment with Royal London's climate commitments, these asset managers are also required to be signatories to the Net Zero Asset Managers (NZAM) initiative – or to demonstrate an equivalent level of standards in their climate commitments. In early 2025, NZAM suspended its activity and announced a review of the initiative in light of changing regulatory and client expectations. While we await the outcome of the review, confirmation has been obtained from our key asset managers that they continue to demonstrate the standards we require.

RLMIS considers additional expectations when deciding whether to onboard or retain key asset managers (those asset managers who manage over £100m each on our behalf and/or Matrix fund asset managers). RLMIS assesses the Group's key asset managers against the following criteria on a 'comply or explain' basis:

- develop a climate transition plan and demonstrate progress against climate commitments
- exercise voting rights on all eligible investments and ensure voting takes the principles of our Voting Policy into consideration
- exercise exclusions on all eligible investments and ensure relevant companies are excluded in line with the principles of our Exclusions Policy
- set clear investor engagement priorities on climate change, taking into consideration the level of influence (the size of their investments) and the materiality of climate change to company risk and performance.

These criteria are considered alongside a broader set of expectations and requirements, with the Investment Committee holding responsibility for final approval of the appointment of key asset managers. RLMIS seeks to validate the information provided to us by cross-checking against third-party data, such as analysis of information provided by our external data provider, MSCI, to monitor the climate transition of our key asset managers.

1. Transition risks are risks arising from the transition to a low-carbon economy. See [page 31](#) for further detail.

2. Figure as at 31 December 2024.

3. The Matrix funds are a range of equity funds that RLMIS selects and makes available for customers who wish to invest in funds beyond those directly managed by RLAM.

Embedding sustainability across our business *continued*

Asset manager oversight

Royal London's Asset Manager Oversight Framework assesses and monitors asset managers' responsible investing activity and performance. It is composed of three core pillars:

- Performance
- Responsible Investment and Climate Change (RICC)
- Operations.

To monitor climate-related activity, our UK business applies its RICC Oversight Framework. This framework splits RLMIS' asset managers across three tiers of oversight, in line with the materiality of our exposure (see Figure 2). Each level determines the frequency and sophistication of oversight activities.

RLMIS' RICC Oversight Framework focuses on policy, resources, ESG integration, climate and stewardship aspects including voting, engagement and exclusions (see Figure 3, with further information set out on the next page). We ask key asset managers to 'comply or explain' when any material concerns are identified. RLMIS conducts a baseline assessment through a RICC due diligence questionnaire covering topics included under the RICC Oversight Framework. This questionnaire is issued annually to all asset managers across Tiers 1 and 2, including Matrix fund managers.

Currently, RLAM is the only asset manager that we categorise within Tier 1.

Following receipt of the completed questionnaire, a review and scoring is undertaken to identify any areas for discussion and challenge, where appropriate. All Tier 3 asset managers receive a standard due diligence questionnaire, which includes a number of RICC questions. In addition, formal biannual stewardship meetings are conducted with RLAM and our Tier 2 asset managers.

Figure 2: Asset manager oversight tiers¹

Tier 1

Royal London Asset Management

RLAM, which manages over 95% of our customers' assets, is subject to Tier 1 'advanced monitoring' arrangements, in addition to the baseline arrangements applied to Tier 3 asset managers.

Tier 2

Key asset managers

Key asset managers who manage over £100m each on behalf of RLMIS and/or our Matrix fund asset managers. These managers are subject to 'enhanced oversight' arrangements, in addition to the baseline arrangements applied to Tier 3 asset managers.

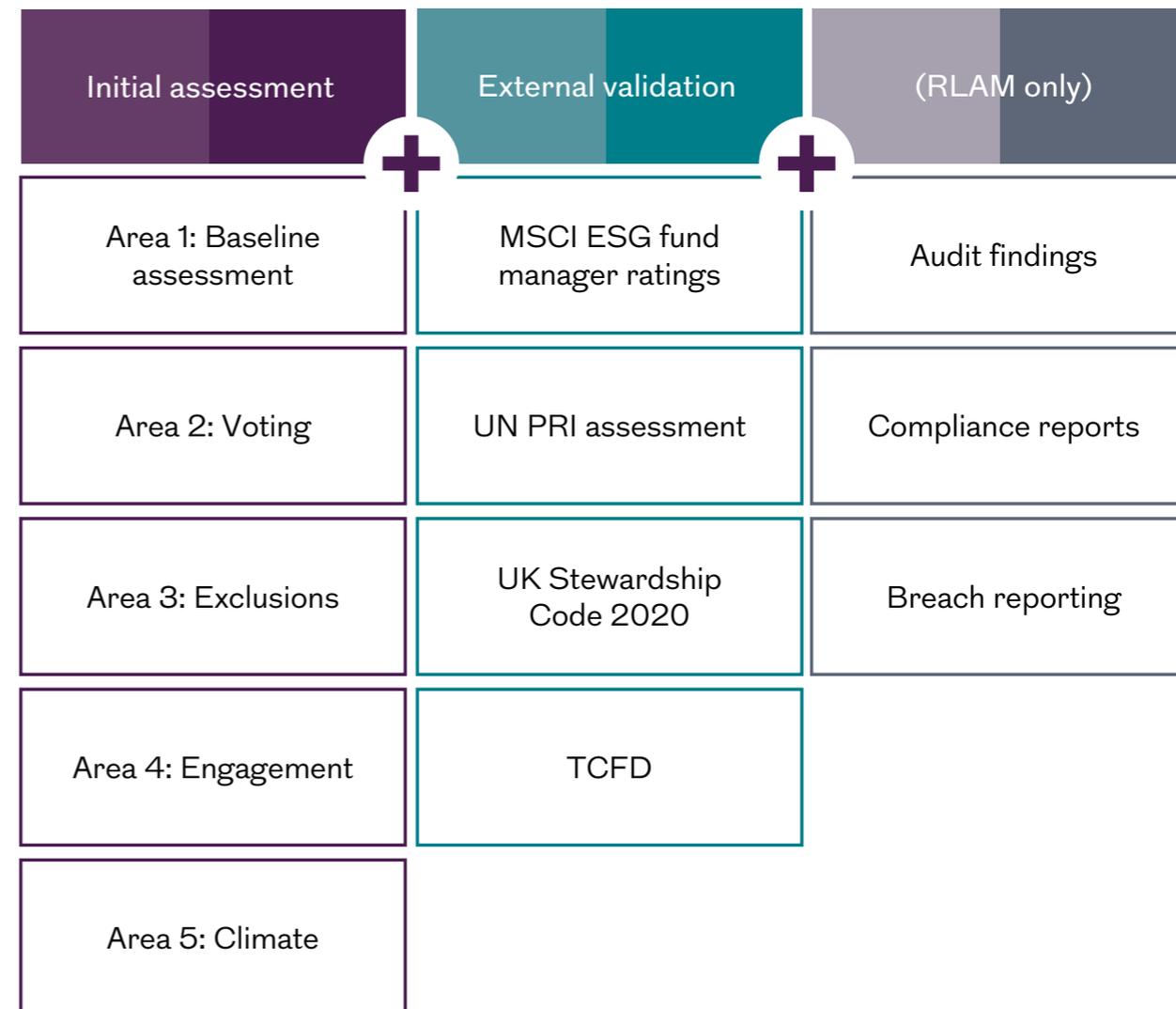
Tier 3

All asset managers

All asset managers with RLMIS customer investments who do not meet the criteria to be classified as Tier 1 or Tier 2. These managers are subject to 'baseline oversight' arrangements.

1. During 2024, we made adjustments to this terminology. 'Tier 3' was previously the label we applied to our Asset Management business which is subject to advanced monitoring arrangements – we now use 'Tier 3' as the label for this. 'Tier 1' was previously the label we applied to asset managers subject to baseline oversight arrangements – we now label these arrangements as 'Tier 3'.

Figure 3: The RLMIS RICC Oversight Framework



Embedding sustainability across our business *continued*

Monitoring our Asset Management business

The performance of our Asset Management business is subject to RLMIS' highest level of oversight due to the high proportion of RLMIS assets that it manages.

We implement two assessments to ensure our Asset Management business's appropriateness to manage the majority of our assets. The first is an ongoing review of its responsible investment capabilities, conducted via RLMIS' RICC Oversight Framework. This involves detailed questionnaires and enhanced ongoing monitoring of RLAM's responsible investment activity.

The second assessment is a triennial assessment of its suitability. Every three years, RLMIS performs a more detailed review of our Asset Management business, consolidating all the ongoing oversight we perform, collating feedback from key stakeholders and performing a fees analysis. The last assessment was completed in 2022 and the next assessment is due in 2025.

Our approach to monitoring across Tiers 1 and 2

In addition to the RICC due diligence questionnaire, RLMIS receives supplementary information and data for RLAM, as our Tier 1 asset manager, and for Tier 2 asset managers. This identifies any areas for discussion or challenge in formal biannual stewardship meetings with these asset managers. RLMIS undertakes further analysis for the following areas:

- **Voting:** RLAM's approach to voting is reflected in our Group Voting Policy. For Tier 2 asset managers, quarterly Pension Lifetime Savings Association and significant voting data is requested for analysis. In addition, the voting policies of Tier 2 asset managers

are compared against our Group Voting Policy, with those asset managers confirming on a 'comply or explain' basis that they align to our policy.

- **Exclusions:** Analysis of exclusions data is presented at biannual stewardship meetings, which includes data on exclusions. For RLAM, this analysis involves assessing compliance with our Group-wide policies. The exclusions policies of Tier 2 asset managers are also compared against those of RLMIS, with asset managers confirming on a 'comply or explain' basis that they align to the RLMIS Exclusions Policy.
- **Engagement:** RLAM's approach is reflected in our Group Responsible Investment and Stewardship Policy. Tier 2 asset managers' engagement policies, priorities, escalations and reporting processes are reviewed on an ongoing basis.
- **Climate:** Partly covered through the RICC baseline assessment, this includes review of the approach taken to climate change policy by both RLAM and our Tier 2 asset managers. Asset managers are also assessed on their climate target disclosures and whether they have a publicly available climate transition plan.

Alongside the initial assessment of asset managers, RLMIS cross-checks sources of external validation. These sources include, but are not limited to, MSCI data on ESG fund manager ratings, UN PRI assessments and UK Stewardship Code disclosures. For Tier 2 asset managers, RLMIS also assesses their TCFD disclosures.

As RLAM sits within Tier 1, additional validation is undertaken to gain further insight into its activity. Audit findings, compliance reports, breach reporting and other similar sources of information are reviewed.

Formal biannual stewardship meetings are conducted across RLAM and Tier 2 asset managers, parts of which are informed by analysis of MSCI data for the funds that they hold on behalf of RLMIS. These meetings discuss:

- key metrics from the RICC Oversight Framework, including the main areas of voting, exclusions, engagement and climate, as well as expectations such as monitoring progress towards net zero commitments
- any changes to our policies, procedures or stewardship requirements
- any current or upcoming regulatory changes and the outcome of monitoring activities.

Progress in 2024

During 2024, we tracked key metrics to assess the progress of RLAM and our Tier 2 asset managers against our climate targets. Through stewardship meetings, we confirmed that asset managers who manage RLMIS assets are signatories of the UK Stewardship Code 2020 and UN PRI, and are either signatories of NZAM¹ or demonstrate an equivalent level of standards in their climate commitments. As part of these meetings, key asset managers confirmed that they are broadly aligned to the Group Voting and RLMIS Exclusion Policies.

We continued to enhance the RLMIS RICC Oversight Framework in 2024. To improve the baseline assessment (see Figure 3), RLMIS refined questions within its RICC due diligence questionnaire, based on regulatory and industry insights. These questions cover topics including responsible investment activities, ESG integration, governance arrangements, voting practices, exclusions criteria, climate, stewardship and

engagement activities. This will enable us to better engage and challenge our asset managers on these topics, where applicable. RLMIS also introduced a rating system across Tiers 1 and 2 for progress against the RICC assessment areas of voting, exclusions, engagement and climate (see Figure 3). These ratings, produced using qualitative and quantitative analysis, enable us to compare between asset managers, facilitating a deeper understanding of their performance.

As industry data quality and policy expectations evolve, we will continue to refine RLMIS' RICC Oversight Framework to reflect good practice. Looking ahead to 2025, we are focusing on asset manager engagement to enhance our understanding of their priorities, frameworks for engaging with companies in which they invest, and how they monitor and track progress against these frameworks.

1. In early 2025, NZAM suspended its activity and announced a review of the initiative in light of changing regulatory and client expectations. Our Asset Management business has not changed any of its activities as a consequence of this suspension, and it will engage constructively in any consultation.

Embedding sustainability across our business *continued*

Stewardship of our assets

As the UK's largest mutual life, pensions and investments company, we seek to use this position to influence the behaviour of policymakers, the companies we invest in, our peers and other stakeholders to benefit our members, customers, clients and wider society.

The Group's stewardship approach includes asset manager oversight, engagement with policymakers, investee companies and others, as well as exercising our voting rights. As an asset owner, we inform key asset managers of the engagement themes that we want them to prioritise on our behalf, and we reserve the right to decide on the exclusions that are important to our customers and clients. Our Asset Management business undertakes stewardship and engagement activity with investee companies on behalf of the Group and its external clients. Find details of our approach to asset manager oversight on [page 11](#), of our engagement activities on [page 16](#), and of our voting activities below.

In 2024, we enhanced our Group-wide approach by developing an updated Responsible Investment and Stewardship Policy. This brings together our existing responsible investment and stewardship policies and frameworks, including our Voting Policy, and replaces our previous Stewardship and Engagement Policy. We will continue to develop our policy as good practice evolves. Through our Asset Manager Oversight Framework, we monitor the performance of our asset managers against this policy and other considerations, to confirm they meet our required standards.

We are also committed to working with our peers in the financial sector, regulators and policymakers to play our part in responding to market-level and systemic risks. We do this through collaboration with industry bodies, as detailed on [pages 17 to 18](#).

As signatories to the FRC's UK Stewardship Code 2020, we demonstrate our dedication to continuous improvement and transparency against the highest stewardship standards. In 2024, both RLMIS and RLAM successfully retained signatory status of the UK Stewardship Code 2020 based on the FRC's assessment of our reporting. These reports are available on our [website](#).

Voting

We actively exercise the voting rights we gain from holding shares in companies. Our Group-wide Voting Policy sets the parameters within which asset owners and asset managers should operate. The Policy includes the [Royal London Voting Principles](#) and [RLAM's Voting Guidelines](#), which are publicly available on our websites. RLMIS delegates voting decisions to its asset managers as part of the investment management process. For investments in 'pooled' collective investment funds, we engage with our asset managers to assess how they align with our Voting Policy. We monitor and analyse the voting patterns of asset managers, taking further action if needed. For segregated mandates managed by our Asset Management business, we have a Reserved Voting process that enables us to direct a vote on resolutions if required.

Our Reserved Voting Forum considers and provides voting advice in respect of any votes that are judged to be high risk and/or sensitive resolutions proposed by investee companies or their shareholders. In 2024, the Reserved Voting Forum considered six investee company resolutions.

How our Asset Management business voted in line with the Group's Voting Policy in 2024:

Shell plc

The company submitted a climate update and its climate transition strategy for 2024 to a vote this year. Our position in 2023 was to vote against a similar resolution, due to the lack of observed progress against our expectations. Since then, the company made progress on certain aspects of our asks, including increased disclosure around climate targets and the introduction of a new absolute Scope 3 emissions target for the use of oil products. However, we had several remaining concerns, including continued expenditure on new exploration, and were yet to see exploration plans being linked to a Paris-aligned decarbonisation pathway. We expressed our concern by abstaining from voting on the Approval of Energy Transition Update and Energy Transition Strategy 2024.

Exxon Mobil Corp

Exxon filed a lawsuit in January 2024 to exclude a shareholder proposal for more ambitious GHG reduction targets. The shareholder proposal was withdrawn in February, but Exxon did not drop the lawsuit.

At the Annual General Meeting (AGM) in May, RLAM voted against the Chief Executive Officer, against all members of the Environment and Social Committee, and against the Chair of the Governance Committee. We voted as follows:

- Multiple Director Elections > *Against*
- Shareholder Proposal Regarding Revisiting (Removing) Pay Incentives for GHG Emissions Reductions > *Against*
- Shareholder Proposal Regarding Virgin Plastic Demand > *For*
- Shareholder Proposal Regarding Just Transition Reporting > *For*

In June 2024, a federal judge dismissed the case as moot. Disappointingly, this dismissal preserves the option for other companies to pursue the same route to keep ESG-related shareholder proposals off annual meeting ballots, negatively impacting shareholder rights.

Supporting the just transition

We voted *For* on the five shareholder proposals on just transition that were put to a shareholder vote in 2024 (Amazon.com Inc., Exxon Mobil Corp., FedEx Corp., The Kroger Co. and Republic Services Inc.). Each proposal was reasonable and aligned with our position. For more detail of these votes, see [RLAM's Stewardship and Responsible Investment Report 2024](#).

Embedding sustainability across our business *continued*



Building our internal capabilities

We want all Royal London colleagues to understand sustainability-related issues and feel empowered to act.

Sustainability Learning and Capability Plan

During 2024, we further developed and began the delivery of our Sustainability Learning and Capability Plan to build the right skillsets and mindsets on key sustainability topics. The Plan tailors sustainability training and engagement to different roles across Royal London, from foundational all-colleague learning to specialised modules for technical roles, senior management and Board members. In 2024, we:

- provided targeted training on responsible investment and sustainability to all colleagues in our Asset Management business, including its Board
- partnered with sustainability learning specialists at Cranfield University to deliver an interactive workshop for senior leaders, supporting them to become sustainability leaders in Royal London and embed our climate strategy into their teams
- created a short animation outlining our climate commitments, targets and timelines for colleagues, inviting them to play their part in moving fairly to a sustainable world. This was launched during our Group-wide 2024 Sustainability Summit and will form part of our e-learning module for all colleagues, to be released in 2025.

Eco Champs network

Our 'Eco Champs' colleague network continued to expand, growing to more than 930 members by the end of 2024. This voluntary network focuses on building a culture of sustainability across Royal London by educating and inspiring colleagues through communications, events and activities, including our annual Sustainability Summit (see [page 28](#)).

Throughout the year, the Eco Champs network organised 15 educational events covering themes including supply chain sustainability, biodiversity, technology, colleague emissions, the just transition and visions for a sustainable future. To support the events, the network also published a range of internal articles and resources.

Carbon footprint partner

We also developed our relationship with our carbon footprint partner, Pawprint, as we continued to motivate colleagues to reduce their personal footprints through the Pawprint app. In 2024, the number of colleagues engaging with the app increased by 31% compared to 2023, resulting in more than 229,000 actions logged in 2024.

Colleague engagement activities

We continued to measure our colleague engagement activities by tracking sustainability questions in our biannual colleague engagement survey. A growing majority of colleagues (79%) agree that they understand how their role contributes to Royal London's goal of moving fairly to a sustainable world, an increase from 71% in 2023. We also began measuring colleagues' understanding of our climate commitments in 2024, with 73% confirming they know what Royal London's commitments are. We will use these results to inform how we continue to build colleague engagement in 2025 and beyond.

Our climate commitments

Playing our part on climate change

To support achieving our Purpose outcomes, which form the basis of our climate strategy, we developed a set of climate-related commitments in 2021. We focus on:

1. **Engagement:** exerting our influence through investee companies, policy, industry and government engagement
2. **Portfolio emissions:** reducing emissions from our portfolio to achieve net zero by 2050 (tCO₂e/\$m invested)
3. **Climate-aware investment solutions:** developing solutions that enable customers and clients to invest in the low-carbon transition
4. **Operational emissions:** achieving net zero direct (Scope 1 and 2) operational emissions by 2030, and for our non-investment value chain (Scope 3) by 2050.

Full details of our four commitments and a summary of 2024 progress are provided on [page 5](#). The basis and assumptions underlying our climate targets and metrics are detailed on [page 40](#). Our climate commitments are based on the expectation that governments and policymakers will deliver on their commitments to achieve the goals of the Paris Agreement, and that the required actions do not contravene our legal and regulatory obligations to our members, customers and clients.

Without consistent action from policymakers and governments, Royal London and our wider industry will be unable to achieve the climate commitments we have set. As we continue to review the scope of our commitments as good practice and industry standards evolve, we will remain robust in encouraging policymakers to take the actions necessary for transitioning to net zero.

Our Climate Transition Plan

We recognise that our business and wider industry have more to do to play our part in moving fairly to a sustainable world.

We published our first [Climate Transition Plan](#) in June 2025, alongside this Climate Report. In alignment with recommendations from the Transition Plan Taskforce, our Climate Transition Plan communicates our climate strategy, including how we plan to progress and report on each of our climate commitments.

Continuing to build the trust and confidence of our customers and clients remains a priority when setting and implementing our climate strategy. We will continue to engage with customers, adapting our climate strategy and areas of focus so that we remain relevant and responsive to their needs and aspirations. We want to be clear about the choices we make on their behalf and the progress we are making. To support this, we will remain transparent on the dependencies we face in delivering on our climate ambitions.

Our Climate Transition Plan reflects this approach by summarising our key dependencies and our response to each. These dependencies include the need for policymakers to deliver on their own climate ambitions.



1. Engagement

We commit to engaging with policymakers, the companies we invest in, our peers and other stakeholders to play our part in enabling the fair transition to a sustainable world.

The success of our climate strategy is highly dependent on the actions of others. Therefore, one of the most effective actions we take is to proactively engage on climate-related issues.

Engagement themes

Regular ongoing engagement with policymakers, investee companies and other stakeholders is a key element of good stewardship. Our engagement takes two forms: we seek to influence the behaviour of stakeholders, and we also request information that helps us identify where change is needed.

Our Group-wide themes

We have two engagement themes that we prioritise across all Group engagement activity: climate change and inclusion (focused on a just transition). These themes, which are regularly reviewed, are set by considering our Purpose, customer and client research, our Responsible Investment and Stewardship Policy, and insights from our Asset Management business.

Our Asset Management business's themes

In addition, our Asset Management business has its own themes, which are refreshed biannually, on which it prioritises engagement activity. The themes, presented in Figure 4, align with the Group's themes, as well as the needs of its other clients. Each refresh considers the Group's engagement themes, reviews emerging trends and involves extensive consultation with internal investment teams, responsible investment analysts, clients and other stakeholders.

Figure 4: Our Asset Management business's engagement themes for 2024-26



Climate change

- Transition to global net zero emissions
- Adaptation to climate change



Social and financial inclusion

- Just transition
- Financial inclusion
- Human rights and modern slavery



Health

- Mental health
- Health equity and community health



Innovation, technology and society

- Cyber security
- Technology and society



Governance and corporate culture

- Good governance, purpose and culture
- Diversity



Nature and biodiversity

- Biodiversity restoration and conservation
- Nature

Engaging with investee companies

We engage with investee companies through our Asset Management business. In 2024, our Asset Management business held 724 engagements with 464 investee companies, which addressed 21 unique ESG topics. Of these engagements, 263 were climate-related.

As part of this activity, it also engaged with 40 companies as part of its Net Zero Stewardship Programme, accounting for 54% of financed emissions, and engaged with 25 companies on topics related to the just transition.

Spotlight: A just transition

Encouraging a just transition – where both the social and environmental implications of moving fairly to a low-carbon economy are considered – aligns with our decarbonisation and social inclusion aims. We have advocated for a just transition since 2019.

During 2024, our Asset Management business continued to focus part of its just transition-related engagement on the banking sector – see Figure 5 for an example. Our Asset Management business also began engaging to understand how investee companies can implement climate adaptation plans that consider justice and equity.

You can find out more about RLAM's engagement activity, including on just transition and adaptation, in its [Stewardship and Responsible Investment Report 2024](#).

Figure 5: Just transition at NatWest

As providers of capital, banks have a key role to play in supporting the low-carbon transition. Our Asset Management business began engagement with banks in 2022 – when it asked Barclays, Lloyds Banking Group, NatWest and HSBC to consider integrating considerations of a just transition throughout their climate transition plans. Our expectations for banks, which you can read at www.rlam.com, are aligned with the Transition Plan Taskforce's [Banks Sector Guidance](#).

RLAM continued engagement with NatWest in 2024. At NatWest's AGM, our Asset Management business asked its board to explicitly integrate just transition into its strategy and plans. Companies are facing increased regulatory scrutiny, but a reluctance to disclose plans might prevent positive recognition by customers and investors. To help navigate this, RLAM held two meetings with NatWest before and after the AGM, discussing the challenges of developing an approach without risking a 'say-do' gap – where intentions do not correspond with actions or behaviours. NatWest acknowledged RLAM's investor expectations as a useful guide for it to follow, and RLAM continues to engage with NatWest on its just transition plans.

Engagement *continued*

Engaging with policymakers

Financial institutions cannot deliver on their climate ambitions without clear leadership from policymakers. To help achieve our climate commitments, we encourage policymakers to support the transition to a low-carbon economy, in a way that considers the impact on society. We also engage with policymakers through membership of industry bodies and other collaborative opportunities. We proactively engage on three priority action areas, which support our engagement themes:

- developing the UK's long-term infrastructure strategy to encourage investment in the UK's net zero transition
- catalysing blended finance opportunities
- helping to move from a focus on cost towards value considerations, including investment in the solutions needed to enable the net zero transition.

These action areas are based on the assumption that the UK government will not, now or in the future, renege on its legal obligation to reduce the UK's GHG emissions to net zero by 2050. We will regularly review our policymaker objectives to react to the changing policy landscape and evolving priorities, and so that they remain aligned with our climate strategy.

We also contribute to discussions and consultations relating to disclosures, climate investment taxonomies, labelling activities and interoperability across jurisdictions. Table 1 presents examples of our engagement activity during 2024. See [page 22](#) for a further example of our engagement activity.

Table 1: Policymaker and industry engagement activity

Organisation	Role of Royal London representatives	Key activity in 2024
Association of British Insurers (ABI)	Participant in: Climate Change Steering and Working Groups Financial and Corporate Reporting Committee	Contributed to ABI's evidence submission on the National Wealth Fund to HM Treasury, which urged the UK government to address barriers to investment in the net zero transition. Provided input on how the National Wealth Fund and a UK National Transition Plan can catalyse investment in clean energy.
Bulk Annuity Sustainability Principles Charter	Member of: Steering Committee	RLMIS became a signatory to the Charter in September 2024.
Financial Reporting Council (FRC)	Asset owner and asset manager roundtable participants	Provided input to shape proposed updates to the UK Stewardship Code 2020 for asset owners and asset managers.
Institute and Faculty of Actuaries (IFoA)	Sustainability working parties, Chair and participants	Published research on portfolio alignment metrics to help actuaries better understand the metrics used in climate disclosures and some investment products. Published an article in the Actuary Magazine and presented to the IFoA Life Conference to increase the actuarial profession's knowledge of climate disclosure regulations. Engaged with the Actuarial Society of South Africa for a paper providing an overview of how actuaries can apply their expertise to assist with climate change risks and opportunities, supporting the transition to a low-carbon economy.
Institute of Chartered Accountants in Scotland (ICAS)	Roundtable participant	Provided input to support ICAS' views on the Transition Finance Market Review to the UK Department for Energy Security and Net Zero.

Engagement *continued*

Organisation	Role of Royal London representatives	Key activity in 2024
Insurance Ireland	Participant in: Sustainability Strategy and Advocacy Working Group ESG Regulation and Policy Working Group	Contributed to an industry request calling on the Department of Enterprise Trade and Employment to correct errors identified in the transposition of the Corporate Sustainability Reporting Directive into Irish law.
Investment Association	Sustainability and Responsible Investment Committee member and participant in: Climate Change Working Group Impact Investing Working Group Sustainability Disclosure Requirements (SDR) Working Group	Contributed a case study on our natural capital investment in farmland to the guide for new Members of Parliament on 'How investment management supports UK growth'. Participated in discussions on SDR label applications.
Scottish Taskforce for Green and Sustainable Financial Services	Member of the Taskforce	Building on its 2024 work, the Taskforce published recommendations to the Scottish government on unlocking finance for nature capital and renewable energy and strengthening Scotland's position as a centre for green finance.
The Institutional Investors Group on Climate Change (IIGCC)	Member of: The Paris Aligned Investment Initiative steering groups The Scope 3 Working Group Just Transition Working Group RLAM is a signatory to: Climate Action 100+ NZAM initiative ¹	Reviewed the Net Zero Investment Framework 2.0 and Private Debt Guidance, which provide guidance on developing robust transition strategies. Contributed to guidance on how investors should approach monitoring, measuring and reducing portfolio Scope 3 emissions. RLAM provided input to the Banks Working Group on developing its work on just transition expectations for banks.

1. In early 2025, NZAM suspended activity and announced a review of the initiative in light of changing regulatory and client expectations. Our Asset Management business has not changed any of its activities as a consequence of this suspension and will engage constructively in any consultation.

Organisation	Role of Royal London representatives	Key activity in 2024
Transition Plan Taskforce	Member of: Asset Manager Working Group Asset Owner Working Group Just Transition Working Group	Contributed to the development of the Asset Manager, Asset Owner and Just Transition guidelines, the final versions of which were published in April 2024.
UK Business Group Alliance for Net Zero	Member of the Alliance	Signed a letter to the Prime Minister calling for a new era of UK climate leadership.
UK Sustainable Investment and Finance Association (UKSIF)	Member of the Policy Forum and SDR Working Group	Our Group Chief Executive Officer presented at UKSIF's annual conference on the importance of financial institutions' role in sustainability and climate transition planning. Contributed to UKSIF's views on the impact of the potential UK government's pensions review. Supported a joint letter signed by UKSIF, IIGCC and UN PRI to the Prime Minister on the importance of strong policy support for the net zero transition. Reviewed the Global Investor Statement.

2. Portfolio emissions

We commit to reducing the emissions from our investment portfolio by 50% by 2030 (tCO₂e/\$m invested) from a 2020 baseline, as part of the transition to net zero by 2050.

There are several levers we can use to help reduce our portfolio emissions. This includes engaging with investee companies, developing climate-aware investment strategies and improving management of investment properties.

Listed equity and corporate fixed income assets

We follow an ‘engagement-first’ rather than ‘divestment-first’ approach for our investments because we believe that engagement with investee companies on climate issues will deliver greater real-world impact – as, once divested, it is much harder to influence change. If an investee company is not making material progress, we expect our asset managers to escalate activities. Examples of escalation are on [page 13](#).

For further details of our engagement with investee companies, see [pages 16 to 18](#).

We are also working to expand and adapt the climate-aware investment solutions that we offer to customers and clients. For details, see [page 20](#).

Property assets

Our Asset Management business manages the Group’s property investment portfolio. Across these properties, we aim to achieve net zero carbon by 2030 across our

directly managed property assets and developments, and by 2040 across our indirectly managed property assets.

Directly managed property assets are those over which RLAM has complete operational control, or greater than 50% equity share, or joint ventures where it would cover the proportionate amount of emissions. Developments are defined as any new development or major refurbishment that will come online from 2030 onwards. Indirectly managed property assets are either partially managed by RLAM or managed wholly by the occupier.

During 2024, our strategy to reduce emissions from our property investment portfolio included:

- completing net zero carbon audits across 17 office assets, building on 22 audits undertaken in 2023. These audits review the energy characteristics of the building and compare operational performance to industry benchmarks. Interventions to decarbonise the building are identified and incorporated into asset business plans for implementation – creating a pathway to net zero carbon.
- commencing development of a solar photovoltaic (PV) panel specification guide for landlord and occupier installations. This will ensure that a best practice approach is taken to installing solar PV. It will generate opportunities to engage occupiers on installing solar PV, helping achieve our target for our investment properties of generating up to 9.5 GWh of renewable energy onsite per year by 2040 (equivalent to 11.2 MW of capacity).
- continuing to expand occupier utility data collection initiatives across our property portfolio by installing

Automatic Meter Reading devices. Collecting occupier utility data is critical for monitoring the operational performance of our properties and for more accurately tracking progress towards net zero carbon.

For details of our progress to reduce portfolio emissions, see [pages 41 to 47](#).

Fossil fuels

We recognise the part that we must play in influencing the energy sector’s net zero transition. According to the Intergovernmental Panel on Climate Change (IPCC), the energy sector is the largest contributor to GHG emissions. The net zero transition will need “a substantial reduction in overall fossil fuel use” and a move to “low or zero-carbon energy sources” such as renewables or emerging technologies.

We continue to develop our approach to investment in fossil fuels using in-house experts, with independent challenge provided by an external ESG advisory group. The actions we take are grounded in our approach to responsible investment, as detailed on our [website](#).

We focus on engaging with companies and escalating where needed, engaging with policymakers, and assessing risks and opportunities related to our investments. We will continue to provide transparency on the progress we are making and the rationale behind our decisions. For further details, see [page 15](#) of our [Climate Transition Plan](#). For details of our exposure to fossil fuel activities, see [page 47](#) of this report.

3. Climate-aware investment solutions

As a Group, we commit to developing investment solutions that will enable our customers and clients to invest in the low-carbon transition.

Climate-aware investment solutions are an important part of our responsible investment strategy, helping us meet the long-term needs of our customers and clients, as well as wider society, as we transition to a lower carbon economy.

Our existing strategies

We help our customers and clients align their investments with a lower-carbon transition through a number of solutions, including our equity tilts, equity transitions, commodities tilts and real assets strategies. More information on these products is included in our product documentation and previous TCFD-aligned reporting.

Our focus in 2024

We applied a low-carbon and governance tilt strategy to our Emerging Market equities fund in 2024. Most of the assets are within RLMIS portfolios, with the solution expected to reduce our carbon exposure.

To strengthen our delivery plans, in 2024 we established a dedicated climate-aware investment solutions working group. This group of senior colleagues meets regularly to develop our approach and address key challenges to enabling our customers and clients to invest in the low-carbon transition.

Our next steps

Delivering climate-aware investment solutions

We will expand and adapt our choice of climate-aware investment solutions to support customer and client outcomes. Through this, we will offer exposure to companies and other assets that:

- align with the low-carbon transition
- enable others to do so, and/or
- are credibly transitioning.

The types of climate-aware investment solutions available to Royal London are described in Figure 6, alongside the base expectations that apply to all of our investment solutions. In the medium to long term, we will explore suitable investment strategies under each category. Our Sustainability and Stewardship Delivery Group and Group Sustainability Oversight Committee, as described on [page 26](#), will support these efforts with a focus on cross-Group collaboration, knowledge sharing and innovation.

Measuring progress and reporting impact

It is important that, as investors, we do not overstate our ability to directly influence climate outcomes.

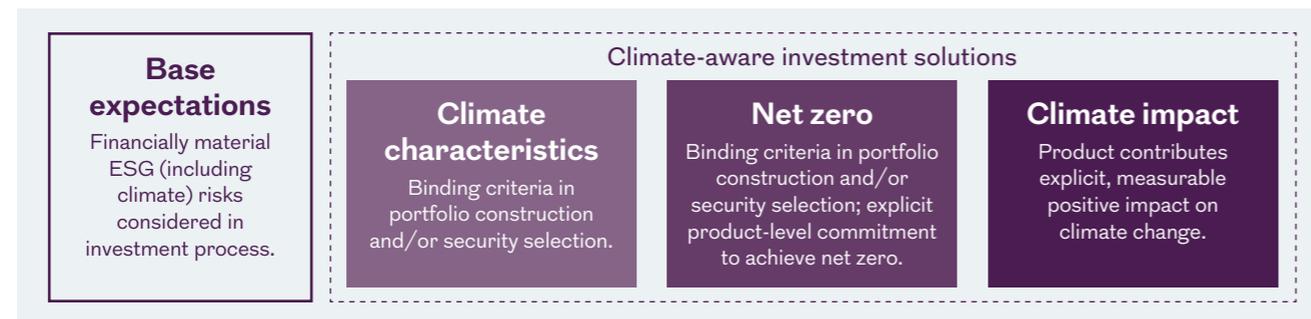
We are realistic about the likelihood of Royal London's investment choices, in isolation, to change the behaviour of companies and other issuers. At present, with the exception of our property portfolio and primary issuance investments, the majority of our investments are indirect, for example through the trading of secondary market listed equity and corporate fixed income assets. However, we believe that if a sufficiently large number of investors were to take the same approach, our investment decisions could collectively help incentivise companies and other issuers to adopt behaviours that support the net zero transition.

Our reporting of new and evolving climate-aware investment solutions will clearly explain any expectations regarding:

- **direct effects:** how we expect our investment choices to affect companies and other issuers
- **indirect effects:** how we expect these effects to influence companies' and other issuers' decision making
- **systemic effects:** how outcomes from these decisions may be expected to contribute to the mitigation of climate change.

We will disclose the detail of new and evolving climate-aware investment solutions as we make them available to our customers and clients. The assessment of portfolios' alignment with the net zero transition and contribution to climate change mitigation are emerging fields. We will continue exploring good practice in these areas internally and with other investors, to support the evolution of transparent progress reporting.

Figure 6: Types of climate-aware investment solution



4. Operational and value chain emissions

We commit to achieving net zero in our direct operational emissions by 2030 (Scopes 1 and 2), and in our Scope 3 non-investment value chain by 2050. We also commit to purchasing 100% renewable electricity for our operations (Scope 2) by 2025.

While our investment portfolio generates over 99% of our emissions, we recognise the contribution of our own operations and value chain to climate change. We have, therefore, set interim and long-term targets to reduce our operational emissions, as detailed on [page 39](#). Delivering on these commitments helps us contribute towards the objectives of the Paris Agreement.

Our strategy

We focus on reducing GHG emissions across our operational estate and our non-investment-related value chain, and improving our performance against selected environmental metrics.

Ahead of our 2030 target, our operational estate strategy will prioritise energy efficiency measures, investment in renewable energy technologies and purchase of renewable energy contracts.

Our value chain strategy will prioritise reducing GHG emissions as much as is feasible, with a particular focus on our three highest sources of Scope 3 non-investment emissions: purchased goods and services, colleague commuting (including working from home) and business travel. Across our selected additional metrics, our strategy will focus on reducing consumption of paper, waste and water.

Direct operations

Our strategy to reach net zero across our direct operational emissions (Scope 1 and 2) includes:

- continuing to procure renewable energy contracts for 100% of our electricity use by 2025
- transitioning 100% of UK company cars to electric vehicles (EV) by 2026
- removing all fossil-fuel fired boilers and equipment from owned buildings by 2029
- installing solar panels at our Alderley Park office by 2029
- identifying and implementing all energy efficiency initiatives across our buildings (capital projects) by 2029
- aligning our operational estate strategy to our net zero trajectory by 2029.

We progressed several initiatives during 2024, including purchasing Renewable Energy Guarantees of Origin (REGO) certificates to secure renewable energy across our operational estate, and commencing a project to install more than 200 solar panels at our Alderley Park office. At the end of 2024, more than 80% of our company cars were EV.

Value chain

We continue to enhance our strategy to reduce value chain emissions as new opportunities arise to work with suppliers, colleagues and customers. During 2024, our approach included:

- launching a new colleague benefit that provides advice on heating efficiency and home improvement assessments to support carbon and cost savings at home

- engaging with suppliers on net zero to understand their targets and what initiatives are being undertaken to reduce emissions
- seeking input from suppliers on wider sustainability initiatives where relevant, for example inviting our technology suppliers to speak about AI and sustainability at our 2024 Sustainability Summit
- surveying over 1,500 colleagues on their homeworking and commuting patterns to improve the data informing our strategy and to raise colleague awareness.

Other environmental metrics

We have also set 2025 targets for additional environmental metrics on paper, waste and water. We commit to a reduction of 90% of paper used internally (per policy) and a reduction of 50% of paper used externally (per policy). We will continue to send zero waste to landfill and reduce total waste by 50% (per full-time equivalent colleague), and we commit to a 15% reduction in water consumption (per full-time equivalent colleague). For our paper, waste and water metrics, our strategy is focused on paper reduction initiatives with external suppliers, and on identifying areas for waste and water reduction. During 2024, our approach included:

- encouraging customers to access their policies online. More than 241,000 protection customers had registered to use our My Royal London portal by the end of 2024, an increase from 205,000 customers in 2023.
- removing over a third of printers across our offices.
- highlighting the importance of waste reduction across our offices. We took action such as offering used

- coffee grounds — an excellent compost ingredient — to colleagues for their gardens. To reduce food waste from our onsite catering, our ‘too good to go’ food scheme offers colleagues reduced-price options.
- improving data collection and estimation methodologies for paper, waste and water.

Carbon offsetting

We prioritise reducing our operational emissions through our own actions and by influencing others. We also believe there is a role for carbon offsetting to compensate for emissions still created through our operations during our transition to net zero. Our Group has been carbon neutral in our direct operations (Scope 1 and 2) through use of carbon offsetting since 2020.

Our offsetting to-date has been through the purchase of avoidance credits for projects certified to the highest standard. As we continue our journey to net zero by 2030 for our direct operations, we are working to shift from carbon avoidance to carbon removal credits to offset any residual emissions¹. We have purchased credits in a Gold Standard project providing solar energy systems to communities in India, and in a Verified Carbon Standard reforestation and community development project in Ghana². We are also supporting a programme to invest in innovative future carbon removal technologies.

As the voluntary carbon market continues to evolve, we will monitor good practice. We seek to align with the Oxford Principles for Net Zero Aligned Carbon Offsetting³ to ensure we are taking a robust approach in our offsetting strategy.

For details of our progress to reduce operational and value chain emissions, see [pages 48 to 50](#).

1. Residual emissions are hard-to-abate emissions amounting to no more than 10% of our baseline (2019) emissions at 2030.

2. For details of Gold Standard, visit www.goldstandard.org. For details of Verified Carbon Standard, visit www.verra.org/programs/verified-carbon-standard/.

3. These Principles are available at: www.smithschool.ox.ac.uk/sites/default/files/2022-01/Oxford-Offsetting-Principles-2020.pdf.



Advocating for ambitious and investable UK climate targets

We continued to proactively engage with policymakers on climate-related issues in 2024, recognising that the success of our own climate strategy is highly dependent on the actions of others. Ahead of the United Nations climate conference COP29, we were one of the only insurance companies to join more than 50 businesses, investors and financial institutions in signing a letter urging the UK government to assert its climate leadership on the world stage. Put forward by the UK Business Group Alliance for Net Zero, the letter called for the UK to be one of the first countries to announce an ambitious and investable update to its Nationally Determined Contribution (NDC) – its national climate action plan contributing towards the Paris Agreement.

We were pleased to see the UK subsequently announce an ambitious update to its 2035 NDC during the first days of COP29, to “help restore our global climate leadership”. The NDC commits the UK to reduce economy-wide GHG emissions by at least 81% compared to 1990 levels (excluding emissions from international aviation and shipping).

“When businesses, investors, financial institutions and government work together, they can be powerful catalysts for change. By participating in a range of collaborative industry groups and activities, we aim to express our support for clear, consistent climate-related policy that enables businesses and the financial sector to plan and implement climate strategies.”

Steven Hill

Head of Policy and External Affairs

For further detail of our other policymaker engagement activities in 2024, see [pages 17 to 18](#).

1. UK Parliament, Statement UIN HCWS206, 12 November 2024. Available at: <https://questions-statements.parliament.uk/written-statements/detail/2024-11-12/hcws206>

Governance

Effective governance, with work overseen by the relevant Royal London boards and committees, is integral to delivering our Purpose and strategy, serving our customers and growing our business safely.

In this section, we discuss:

- how climate-related activities across the business are overseen
- the role of management in climate-related activities
- how climate change is embedded in our Remuneration Policy.

Governance



Board oversight

The RLMIS Board sets the strategic direction for the Group. This includes responsibility for promoting the long-term sustainable success of Royal London in a manner that seeks to generate value for its members while taking account of its stakeholders' interests, its impact on the environment, and its contribution to wider society. It also includes responsibility to guide the Group's climate strategy. The RLMIS Board receives updates on climate-related activity at least every six months. Details of the oversight and delivery of our climate strategy are on [page 27](#).

All boards and committees must demonstrate that they take ESG considerations into account through the reports they receive, including climate-related risks and opportunities. Within the Group, climate-related accountabilities are defined and managed in line with the Senior Managers and Certification Regime's requirements. The RLMIS Board delegates to:

- the Group Chief Executive Officer, Barry O'Dwyer, the day-to-day management of the Group to achieve its Purpose and to implement its strategy and objectives in line with its culture, values and ethical and regulatory standards
- the Group Chief Financial Officer, Daniel Cazeaux, the regulatory responsibility for managing the financial risks arising from climate change
- the Group Chief Risk Officer, Dr James McCourt, the responsibility for maintaining the robustness of the Group's risk management systems.

RLAM Limited, RLUTM and RLUM operate in the Group structure and are aligned to the Group's Purpose, strategy and climate-related commitments. Each of these legal entities has a separate board of directors and governance structure and considers climate-related matters relevant to them. See [pages 54 to 70](#) for further details.

Our climate-related governance activity in 2024

The relevant boards and committees within the Group directly engage with and consider key climate-related activity.

During 2024, this included:

- review of the Group's climate commitments, progress and implications by the RLMIS Board
- approval of the 2023 Royal London Group Climate (TCFD) Report by the RLMIS Board
- approval of the RLMIS 2023 Stewardship Report by the Investment Committee
- approval of the Responsible Investment and Stewardship Policy by the RLMIS Board
- approval of the RLAM 2023 Stewardship and Responsible Investment Report by the RLAM Limited Board
- approval of the RLMIS Investment Philosophy and Beliefs, including climate considerations, by the RLMIS Board
- review of key updates on responsible investment and climate change by the RLMIS Board and the RLAM Limited Board
- participation by the RLAM Limited Board in a deep-dive session and externally facilitated training on responsible investment and climate
- approval of updates to our climate risk appetite statement by the RLMIS Board, to reflect evolving best practice and monitoring of climate risk management activity across the Group.

Governance *continued***Committee structure**

The RLMIS Board has established committees and delegated authority to them to consider and make recommendations to the RLMIS Board on important issues of policy and governance facing the Group, including those that are climate-related. This structure ensures that we have appropriate expertise and constructive debate in managing and overseeing the Group's affairs, and it facilitates effective, efficient and transparent decision making.

All boards and committees must demonstrate that they take ESG considerations into account through the reports they receive, including climate-related risks and opportunities. A mandatory prescribed board and committee paper template, requiring the inclusion of this information, acts as a tool to embed these key considerations in day-to-day decision making.

An overview of the RLMIS Board committees that share climate-related roles and responsibilities for the Group is presented in Table 2. The full governance structure of RLMIS is available in the [RLMIS 2024 Annual Report and Accounts](#).

Further to Table 2, the Group Executive Committee supports the Group Chief Executive Officer in the day-to-day management of the Group's business and affairs, including overseeing climate-related risks and opportunities across Royal London. Our Asset Management business is represented on the Group Executive Committee by the Chief Executive Officer of RLAM Limited, RLUM¹ and RLUTM.

Beyond this, the Independent Governance Committee acts independently from the RLMIS Board to assess the ongoing value for money provided by the Group to its Workplace Pension and Investment Pathway customers. Its remit includes consideration of environmental, social and governance factors that are material to the suitability of an investment. The committee operates in accordance with the requirements of the FCA's Conduct of Business Sourcebook, section 19.5.

Table 2: RLMIS Board committees

RLMIS Board committees	Climate-related roles and responsibilities
Investment Committee	Supports the RLMIS Board in managing financial investments held as principal in a manner consistent with the RLMIS Investment Philosophy and Beliefs, including climate-related investment risks and opportunities.
Risk and Capital Committee	Supports the RLMIS Board in managing the Group's risk and capital position and in complying with prudential and conduct regulations. It also oversees the effectiveness of the Group's risk management and internal control systems, which are designed to manage and mitigate risks to achieving our business objectives within our risk appetite. The Group's Risk Appetite Framework is approved by the RLMIS Board and defines the level of risk we are willing to take in alignment with our Purpose and strategy.
Remuneration Committee	Supports the RLMIS Board in determining and implementing the Group's Remuneration Policy and the compensation of key senior management. This includes how climate-related targets and objectives are considered as part of the Group's Remuneration Policy.
Audit Committee	Supports the RLMIS Board in overseeing the Group's financial and regulatory reporting, financial controls, and internal and external audit arrangements. As part of this, it reviews and recommends to the RLMIS Board for approval the Royal London Group's Climate Report prepared in accordance with the TCFD recommendations.
Disclosure Committee	Supports the RLMIS Board in the announcement and publication of key market and member information, and financial and regulatory information, including the Royal London Group's Climate Report prepared in accordance with the TCFD recommendations.

1. As of 1 April 2024.

Governance *continued***The role of management**

Royal London's Group Sustainability Oversight Committee (GSOC), which supports our Group Executive Committee, has responsibility for:

- supporting, overseeing and challenging the delivery of the product, investment and operational sustainability goals of the Group
- providing clear direction, ensuring alignment and transparency of delivery across the Group
- providing support, challenge and recommendations, as required, to the Group Executive Committee.

In 2024, we established the Sustainability and Stewardship Delivery Group, comprising senior leaders across our business. The delivery group reports to the GSOC and supports delivery of our climate strategy. Our Group Executive Committee is also supported by the Group Executive Risk Committee, which is responsible for monitoring risk at the Group level against the Group's Risk Appetite Framework, including climate and sustainability-related risks. Supervision from the GSOC complements how climate-related risks are assessed and managed across the business in accordance to Royal London's risk management processes, including our risk management framework.

Support in managing climate-related risks is provided by a number of teams across the Group. Table 3 presents the key teams involved. Forums and working groups also play a central part in supporting and informing our committees, management and the wider business on climate-related risks and opportunities. Table 4 presents examples of other key groups who carry out climate-related activities.

Table 3: Key teams with climate-related responsibilities

Team	Climate-related responsibilities
Group Actuarial	Conducts climate scenario stress testing across a range of timescales to assess the impact of climate change on our capital position and business planning, and to address regulatory expectations.
Group Risk and Compliance	Responsible for embedding climate-related risks into our risk management framework and provides second line review of climate-related reporting.
Group Sustainability and Stewardship	Accountable for the Group's sustainability strategy, including ensuring Group-wide alignment. The team provides expertise and challenge on sustainability, with the aim of embedding sustainability throughout Royal London.
Insight	Provides insight on customer and adviser perceptions and preferences on topics, including responsible investment and environmental impact.
Investment Office	Responsible for developing and implementing the investment strategy and strategic asset allocation for the Group, and overseeing the performance of RLAM and other asset managers. Sustainability and climate-related considerations are integrated across these activities.
Investment Solutions	Leads on the development of climate-aware investment solutions alongside our Asset Management business. The team supports business areas across Royal London and contributes to sustainability and climate-related industry consultations.
Policy and Communications¹	Provides direction on climate-related policy matters and ensures the Group has a strong and consistent voice among key audiences. The team also provides an additional layer of review over communications to ensure they are clear, fair and not misleading.
RLAM Responsible Investment team	Works closely with investment teams in our Asset Management business to provide climate and ESG expertise, consult on proxy voting and collaborate when engaging with companies to encourage improved performance.

Table 4: Key groups for climate-related activities

Group	Climate-related activities
Emerging and Strategic Risk Forum	Identifies, monitors, assesses and reports emerging and strategic risks, including climate-related risks, to the Group Executive Risk Committee. It also supports the Group's stress and scenario testing processes.
Group Sustainability and Stewardship Forum	Enables regular communication and knowledge sharing between teams that manage activities which support progress towards Royal London's sustainability goals and Purpose ² .
Group Sustainability Oversight Committee	Supports the Group Executive Committee, by overseeing delivery of the Group's sustainability goals and providing direction, support and challenge on sustainability topics. See above on this page for further detail.
Sustainability and Stewardship Delivery Group	Comprises of senior leaders across our business, who support implementation of our climate strategy with members responsible for progressing the Group's sustainability goals. Providing cross-Group collaboration and challenge, the group reports to Royal London's GSOC.

1. As of February 2025, responsibilities for policy matters and corporate communications are split across separate, dedicated teams.

2. Our climate commitments are based on the expectation that governments and policymakers will deliver on their commitments to achieve the goals of the Paris Agreement, and that the required actions do not contravene our legal and regulatory obligations to our members and customers.

Governance *continued*

Approach to developing and implementing our climate strategy

Developing our climate strategy

The Group Sustainability and Stewardship team is accountable for delivering and evolving the Group's sustainability and stewardship strategy, including our climate strategy. The team also supports the embedding of climate and other sustainability activities across the wider business. Group Sustainability and Stewardship colleagues undergo regular training and development to stay up to date with climate-related trends and industry good practice.

Internal and external developments that could materially impact our climate strategy are discussed at GSOC meetings. Recommendations for significant changes to our climate strategy would be brought by the Group Sustainability and Stewardship team to GSOC for review and challenge. These recommendations, which would be informed by relevant subject-matter experts from the Sustainability and Stewardship Delivery Group and other senior leaders from across the business, could include proposed additions or other changes to our climate commitments. Proposals would be subject to approval by the Group Chief Executive Officer, with advice from the Group Executive Committee. Changes to our climate commitments, as described on [page 5](#), would be further subject to RLMIS Board approval. The Group Sustainability and Stewardship team also provides annual updates on Royal London's climate strategy to the RLMIS Board for oversight and challenge.

Implementing our climate strategy

Senior leaders across the Group are responsible for delivering our climate strategy. They meet regularly with the Group Sustainability and Stewardship team as part of the Sustainability and Stewardship Delivery

Group. Chaired by the Head of Group Sustainability and Stewardship, the delivery group supports cross-business collaboration by discussing strategy delivery plans, recent progress and the prioritisation of the activities detailed within our Climate Transition Plan. The delivery group also provides quarterly updates to the GSOC for oversight and challenge.

Performance management and reward

Royal London's incentive framework is designed to help colleagues focus on activities that support our Purpose and contribute to delivering long-term value for our stakeholders. Within the framework, a Short-Term Incentive Plan applies to the majority of colleagues, while a Long-Term Incentive Plan applies to our most senior colleagues.

These incentive plans contain targets and metrics to track the delivery of key outcomes, including our climate commitments. For example, in 2024, we included a measure in our Long-Term Incentive Plan to demonstrate progress against a basket of our priority initiatives, including assessment of progress to reduce carbon emissions and of just transition-related engagement.

Three lines of defence

Our 'three lines of defence' model defines ownership and responsibilities for all risks. This includes climate-related risks:

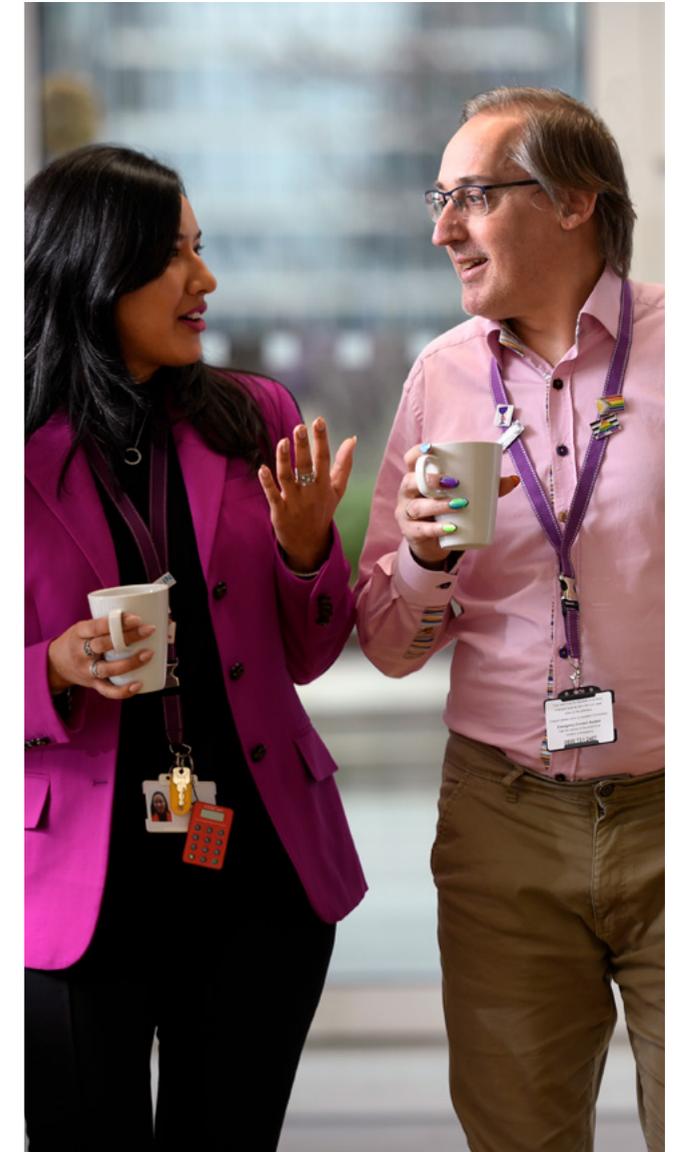
- **'First line'** business units and Group functions have primary responsibility for managing risks. In line with our Group risk management framework, all business areas must attest to the design and effectiveness of their controls biannually. This includes business units and Group functions with climate-related responsibilities. Members of the Group Executive

Committee manage the risks affecting their areas of responsibility.

- **'Second line'** is our Group Risk and Compliance function, which is independent of business units and Group functions. This provides specialist advice, oversight, challenge and assurance, and includes assessing adherence to relevant internal policies and external regulation.
- **'Third line'** is our Group-wide Internal Audit function. This provides independent assurance and has a reporting line independent of executive management.

External assurance

We complement the 'three lines of defence' model noted above with external assurance as necessary. We have received public limited assurance on selected climate metrics. See [pages 43, 50 and 64](#) for more information and links to the independent assurance statements, which include full details of the scope, activities, limitations and conclusions of the assurance engagement. Our 2024 Emissions Metrics Reporting Criteria, which details how we prepared our data, is available at www.royallondon.com.





Our 2024 Sustainability Summit

Our third annual Sustainability Summit was held in November 2024, with the theme of #CreateTheFuture. This week-long internal celebration of sustainability asked colleagues to visualise a net zero future, focusing on how they can play their part in moving fairly to a sustainable world.

More than 800 colleagues participated in a range of webinars, in-person events, activities and competitions. These activities aimed to educate and inspire colleagues to take action to help tackle climate change, covering topics such as responsible investment, supporting communities during the climate transition, reducing homeworking emissions, and recapping Royal London's carbon-reduction targets and progress.

The Summit's keynote panel event explored the relationship between AI and sustainability. Our Head of Group Sustainability and Stewardship was joined by guest speakers from our technology suppliers to discuss the risks, opportunities and impacts associated with the growing demand for AI and data centres worldwide, and what this might look like in the future.

We also continued to build a culture of sustainability at Royal London by making sustainability feel relevant locally. Colleagues at our Edinburgh and Alderley Park offices were invited to hear what is happening in their local communities by attending 'community marketplaces', where they could speak with local groups and suppliers to learn about nature-related volunteering, zero waste products, sustainable food options and more. In London, colleagues were invited to hear from a small local brewery on how its industry is tackling climate change and reducing water use.

“We were encouraged to see more than twice as many colleagues engage with this year's Summit, compared to 2023. By asking colleagues to create a vision for a sustainable future, we hope to help them feel connected with Royal London's aim of moving fairly to a sustainable world and to inspire action at work and beyond.”

Joanna Walker

Head of Group Sustainability and Stewardship

For further detail of colleague engagement activities in 2024, see [page 14](#).

Risk management

Climate risk is complex, with significant uncertainty surrounding the timing and severity of potential impacts. Using our risk management system, we manage climate-related risks across Royal London.

In this section, we discuss:

- our approach to climate risk and opportunity management
- how we identify, assess and manage climate-related risks
- how we have used climate transition pathways to analyse possible risks and opportunities.

Group risk management system

An integrated approach

Climate risks can be strategic, financial or operational – and related to the physical impacts of climate change, or to the transition to a low-carbon economy. Proper identification of climate risks enables us to take the necessary measures to mitigate their effects.

Given that climate risk can manifest itself across any of the risk categories we consider, reporting of climate considerations within each subsidiary and from each subsidiary to the Group is integrated into our Group risk management system.

Climate risks are owned by, and integrated into, individual business units across our UK and Ireland businesses and our Asset Management business. With support from our Risk function, the management of each business unit and Group function is accountable for identifying, measuring, reporting, managing and mitigating all risks relevant to its area of business. This includes the design and operation of suitable internal controls and the allocation of risk and control responsibilities.

This integrated approach helps drive consistency in climate risk management activities across Royal London. It also supports all areas of the Group to integrate key climate-related issues into day-to-day and strategic planning activities.

Group Risk Appetite Framework

Our Group Risk Appetite Framework provides direction and assists in making key decisions related to risk and capital management. It is a central part of our Group risk management system and, for example, assists with decisions related to business and project planning as well as mergers and acquisitions.

It is formed of four components:

- **Our risk strategy:** defines and categorises the types of risks that arise in the pursuit of our business objectives and sets the boundaries within which our risk appetite will operate.
- **Our risk preferences:** articulate the extent to which we view certain risks as being desirable or undesirable.
- **Our risk appetite statements:** explain how much risk we are prepared to be exposed to in relation to each risk category outlined in the risk strategy. These are constructed around five risk appetite categories that we consider core to our business: strategic, capital, liquidity, insurance and operational risk.
- **Our risk metrics:** help measure the amount of risk we are exposed to compared with our risk appetite.

Climate risk appetite statement

Our climate change risk appetite statement outlines our appetite towards the strategic, financial and operational risks arising from climate change. It is part of the risk appetite statements contained within our Group Risk Appetite Framework. RLAM, as a subsidiary of Royal London, operates within the Group's risk appetite statement. In doing so, it articulates specific risk appetite components that reflect its own activities as an asset manager.

In early 2024, the Board approved revisions to our climate risk appetite statement. The updates reflect evolving good practice, including expanding to include examples of the types of climate risks we face, and support monitoring of climate risk management activity across the Group.



“Royal London will manage and mitigate our exposure to the financial, strategic and operational risks arising from climate change. These include climate risks related to our investment decisions, and opportunities to sustainably reduce our carbon footprint and carbon-equivalent emissions in our investment portfolio in line with our commitments. We will also monitor external climate-related developments that could affect the sustainability and resilience of our business. These risks will continue to be embedded into risk management disciplines across the Group and will be monitored through climate risk reporting.”

Climate risk appetite statement

Identifying and assessing climate-related risks

Climate risk landscape

Climate risks are complex and may take shape in a number of ways across a range of time horizons. When assessing climate risks, potential impacts are typically grouped into the categories of physical and transition risks, as shown in Table 5.

As recorded in our Annual Report and Accounts, climate change is one of Royal London's principal risks and uncertainties. We detail the climate-related risks and opportunities deemed most material to the Group in Tables 7 and 8 of this report, on [pages 35 to 36](#).

Table 5: Climate risk categories

Climate risk category	Description	Sub-category	Sub-category description
Physical	Risks related to the physical impacts of climate change	Acute	Climate-related events, such as heatwaves, drought, storms or flooding, leading to damage to land, buildings, stock or infrastructure
		Chronic	Longer-term shifts in climate patterns with impacts such as falling crop yields, sea level rises, migration, political instability or conflict
Transition	Risks related to disorderly adjustments to markets as a result of the transition to a low-carbon economy	Policy	Including carbon pricing, emission caps and subsidies
		Market	Including the emergence of disruptive green technologies and changing consumer behaviours
		Reputation	Stakeholder expectations to address climate change

Climate risk identification

We identify the primary risks arising from climate change and consider interdependencies between risks. We use a number of methods to identify and assess these risks, including horizon scanning. We also assess the direct impact these risks have on our business and their potential to set in motion a range of knock-on direct and indirect impacts over varying time horizons. Using this understanding, we assess the relative significance of each risk to inform our risk management process and prioritisation.

We will continue to refine our risk management approach, including the development of our approach to climate financial risk modelling and through a regular refresh of our risk appetite.

Our horizon scanning processes include:

- **Quarterly regulatory radar**¹: A report on emerging themes (short, medium and long term), in-flight consultations and changes in these themes during the previous quarter. This is owned by the Group Risk and Compliance team.
- **Regulatory update newsletter**¹: A regular newsletter compiled by the Group Risk and Compliance team and distributed throughout our business, which highlights significant regulatory changes, including climate-related regulatory changes.
- **Emerging and Strategic Risk Forum**: A biannual gathering of key individuals involved in the management of emerging risks, strategic risks, and stress and scenario testing across the Group. A report is produced which details the risks identified, an indication of when these might impact our business, and the appointed business owner of the risks.
- **Technical Support team daily scan**: A daily scan for any changes in legislation or regulation that could affect any of RLMIS' UK products, including

ESG-related changes. Changes are summarised and directed to the appropriate teams to address, with the Technical Support team tracking items to completion.

- **Competitors and markets scan**: A weekly newsletter that summarises key activity among our competitors and in the market. The newsletter includes a section on 'climate, nature and sustainability'.
- **Legal horizon-watching report**: A quarterly report that aims to capture the most important and relevant legal developments on the horizon for our business.
- **Legal and Regulatory Horizon Scanning Roles and Responsibilities Forum**: An ad hoc gathering to review and, where required, update roles and responsibilities.

Our climate risk assessments include:

- **Climate scenario modelling**: We conduct climate change scenario modelling to identify and evaluate the potential impacts of physical and transition climate-related risks on our business, across various possible transition pathways and timeframes. This provides us with both quantitative and qualitative assessments of how climate-related risks might impact our business.
- **Qualitative risk assessment**: We also carry out an additional qualitative climate risk assessment to gain a more comprehensive understanding of the risks associated with climate change and how these might materialise and impact our business over different time horizons. This assessment is partly informed by the outputs from our horizon scanning activities and climate scenario modelling.

We use two different approaches to climate risk assessment due to the limitations of scenario modelling (see [page 34](#)). The outputs of our climate scenario modelling can be found on [page 34](#) and the results of our qualitative risk assessment on [pages 35 to 36](#).

1. These processes reflect activities carried out by Group Risk and Compliance on behalf of RLMIS. For further details of RLAM Limited, RLUM and RLUTM's risk identification and assessment processes, refer to [Appendix I](#).

Managing climate-related risks

We do not actively seek to avoid exposure to the climate-related risks to our business. Instead, we seek to manage and mitigate our exposure, undertaking risk management actions to reduce the impact and likelihood of occurrence.

We present the key climate-related risks identified across our business on [pages 35 to 36](#). Examples of how these risks are managed include:

- continuing to develop our Climate Transition Plan, outlining in detail the actions we expect to take to progress our climate strategy and the potential impact on our business and customers
- establishing a Sustainability and Stewardship Delivery Group, comprising Group-wide senior leaders, focused on the delivery and development of our climate strategy
- aggregating climate risk management activity and regular reporting to the Group Executive Risk Committee
- updating the analysis of climate change scenarios in our Own Risk and Solvency Assessment (ORSA)
- enhancing our Group-wide Responsible Investment and Stewardship Policy, replacing the previous Stewardship and Engagement Policy
- refining the Group climate risk appetite statement
- developing our policymaker engagement plan to support our climate commitments.

For all risk categories, our risk management approach primarily focuses on building capabilities across all business areas. This is done by raising awareness of climate-related risks and by sharing best practices for managing these.

Frequency of climate risk reporting

The Board receives updates on climate-related activity at least every six months.

The GSOC, the Investment Committee and the Risk and Capital Committee meet at least quarterly and, in line with their terms of reference, consider and discuss relevant climate-related matters.

Our internal Climate Risk Report is presented to the Group Executive Risk Committee biannually. In 2024, this report included climate-related risks across the Group, in accordance with the Group's climate risk appetite statement.

In addition, a quarterly report from the Group Chief Risk Officer provides the Board with an assessment of risks against our overall Group 'risk appetite' – the level of risk that our business is comfortable taking while remaining aligned with our Purpose and strategy. When relevant, this includes material climate-related risks.



Risks and opportunities assessment

Climate change scenario analysis

Through climate change scenario modelling, we assess the possible impacts of physical and transition climate-related risks to our business, over a range of potential transition pathways and time horizons. This improves our understanding of:

- our financial exposures to climate-related risks
- the challenges to our business models from these risks
- our potential responses
- the implications for our customers and members.

Our understanding continues to be driven by our analysis of the potential impacts on our strategy and financial position, from risks that could arise across a range of climate pathways. This includes our development of investment and business strategies to mitigate these risks while maximising opportunities.

Our 2024 climate pathways

Our 2024 climate pathway analysis modelled outcomes from three climate pathways based on those developed by the Network for Greening the Financial System (NGFS). It focused on a five-year time horizon to align with our business planning. These pathways allow us to examine the impact of possible future climate scenarios on our Group, while recognising that the timing and effectiveness of climate policy are not certain.

We assessed three pathways, as described in Table 6. These pathways include differences in how physical and transition risks could arise, and the expected impacts on Gross Domestic Product (GDP) and financial markets. Due to these differences, we recognise it is difficult to compare the effects on our business over a range of timeframes across all three pathways.

Table 6: 2024 climate pathways

	Below 2°C	Delayed transition	Current policies
Scenario	In this 'orderly' scenario, countries gradually increase the stringency of climate policies. Countries with net zero targets partially reach them (80% of targets are achieved), giving a two-thirds chance of limiting global warming below 2°C by the end of the 21 st century.	In this 'disorderly' scenario, countries do not start transitioning to reduce GHG emissions until 2030, with strong policies then required. Countries with net zero targets partially reach them (80% of targets are achieved). Global warming is limited to below 2°C by the end of the 21 st century, but policy changes in 2030 are unanticipated and disruptive.	In this 'hot house world' scenario, existing climate policies remain in place, but there is no strengthening of the ambition level of these policies. This leads to high physical risks.
Global warming	End-of-century temperature goal met: <ul style="list-style-type: none"> • average global warming stabilises at 1.7°C • CO₂ emissions ~ IPCC RCP¹ 2.6. 	End-of-century temperature goal met: <ul style="list-style-type: none"> • average global warming stabilises at 1.7°C • CO₂ emissions ~ IPCC RCP 2.6. 	End-of-century temperature goal not met: <ul style="list-style-type: none"> • average global warming stabilises at 4°C • CO₂ emissions ~ IPCC RCP 4.5.
Transition risks	Transition risks increase due to: <ul style="list-style-type: none"> • ambitious low-carbon policies • high investment in low-carbon technologies • substitution of fossil fuels for cleaner energy sources and biofuel. 	Transition risks increase due to: <ul style="list-style-type: none"> • ambitious low-carbon policies • high investment in low-carbon technologies • substitution of fossil fuels for cleaner energy sources and biofuel • abrupt pricing-in of transition risks and sentiment shock. 	No impact from transition to low-carbon economy because: <ul style="list-style-type: none"> • economies follow the business-as-usual track, continuing current low-carbon policies and technology trends (for example, significant falls in renewable energy prices) • no additional new policy measures.
Physical risks	<ul style="list-style-type: none"> • Moderate physical impact with regional differences. • Impacts are greater than observed today, but still much less than under a Current policies pathway. 	<ul style="list-style-type: none"> • Moderate physical impact with regional differences. • Impacts are greater than observed today, but still much less than under a Current policies pathway. 	<ul style="list-style-type: none"> • Severe physical impacts occur, increasing over time as temperatures rise. • Impacts include gradual physical changes such as agricultural and worker productivity, as well as more frequent and severe extreme weather events.
Impact on GDP	<ul style="list-style-type: none"> • Global GDP lowers. 	<ul style="list-style-type: none"> • Global GDP level lowers in line with the Below 2°C pathway. 	<ul style="list-style-type: none"> • Global GDP is significantly lower.
Indicative market impacts	<ul style="list-style-type: none"> • Transition is assumed to occur as smoothly as possible. • Negative returns until around 2050 relative to the baseline projection, driven by transition risks. Thereafter, broadly unchanged from the baseline projection. 	<ul style="list-style-type: none"> • Sudden repricing of assets in the medium term, followed by a sudden sentiment shock to the financial system. • Negative returns relative to the baseline projection until around 2050, driven by transition risk from 2030 and more adverse than in a Below 2°C pathway. Positive relative returns from around 2065 as benefits are realised from climate policies, meaning that losses are only slightly worse than in a Below 2°C pathway by 2100. 	<ul style="list-style-type: none"> • Markets price in physical risks up to 2050 by the end of the decade. A second repricing occurs after this decade as investors factor in severe physical risks post-2050. • Negative returns throughout the projection driven by physical risks, modelled as a smooth progression.

1. Representative Concentration Pathways.

Risks and opportunities assessment *continued***Results**

The results of our 2024 pathway analysis were similar to those of our 2023 analysis. Under the three climate pathways described on page 33, our 2024 pathway analysis supported the examination of potential impacts on the value of different asset classes up to 2060. Across each pathway, the results implied a negative year-on-year impact on the value of all our asset classes. The most significant effects were observed in the Current policies scenario, with increasing temperatures leading to a range of negative economic and social impacts.

We assessed the risk to our capital position over a medium-term business planning horizon using our pathway analysis. The most significant adverse impact on our capital position was shown under the Current policies scenario, although modelled impacts on our capital position were still within acceptable bounds of tolerance – primarily due to the dampening effects of our equity hedging strategy.

Modelling limitations

As climate modelling remains an emerging area, we recognise that it may underestimate the level of risk to our Group and our customers. Modelling the financial impacts of unprecedented levels of climate change is inherently challenging, with limitations to current processes including:

- Models are based on known historical relationships between GDP and temperature at a regional level and over a limited timeframe which, when used to estimate the impact of unprecedented global temperature rise, may result in misleading outcomes.
- Our analysis does not make explicit allowance for all potentially significant factors, particularly where it is not possible to reliably integrate the timing, likelihood and severity of financial impacts into the model. Examples may include the geopolitical impacts of severe climate change, such as increases in migration and conflict, which – alongside their enormous human costs – are likely to result in further economic impacts.
- Financial stress tests cannot measure all risks facing our business, such as the risks associated with changing customer expectations, the competitive environment, or the political and geopolitical landscape. These non-financial risks may indirectly lead to financial impacts, including volatility in our capital requirements, shocks to the profitability of existing business and reductions in our new business sales.

The full range of impacts that climate change may have on our business is not currently captured by climate scenario models. This is why we use the outputs of our qualitative risk assessment process alongside our climate scenario modelling: to try to capture risks that may be missed by scenario modelling alone.

Understanding of the impact of climate change, including within the financial sector, is regularly evolving. However, industry development of modelling tools tailored to help firms create their own climate-change scenarios continues to advance slowly, reflecting the breadth and complexity of inputs required for these models. We will continue to reflect on the outputs from climate modelling and review emerging methods.

Considerations for 2025

Building on the Climate Biennial Exploratory Scenario recommendations and the NGFS pathways, we continue to develop our own climate change scenarios. During 2024, we licensed an external third-party climate model to enhance our quantitative climate risk modelling capabilities. We also examined our future use of climate scenarios by conducting research and interviews with third-party experts.

Looking ahead, we intend to use these insights to improve our development of medium-term quantitative scenarios as well as longer-term qualitative scenarios. We also aim to explore widening our analysis of climate scenario outputs beyond capital impact assessments and strategic asset allocation stress testing.



Risks and opportunities assessment *continued***Qualitative risks and opportunities assessment**

Our qualitative assessment of the climate-related risks and opportunities that may impact our business is presented in Tables 7 and 8. Each risk and opportunity is assigned one or multiple timeframes – short- (S, up to one year), medium- (M, one to five years) or long-term (L, over five years) – as an indicator of when we expect it to impact our business. This supports our risk management response, prioritisation and mobilisation. The medium time horizon is aligned with our business planning time horizon of five years.

Table 7: Qualitative risk assessment

Risk category	Risk impact	Sub-category	Potential impact	Timeframe
Strategic	Transition	Reputational	Inability to meet customer and client requirements or expectations, regulatory commitments or own commitments, causing reputational damage to our brand, which leads to loss of new business and increased lapse rates or outflows.	S, M, L
			Lack of consistency in the international regulatory approach to ESG and/or net zero implementation – with differing approaches to labelling and disclosure, implementation timing and expectations relating to consumer facing materials resulting in challenges on how products are communicated, reported and distributed in both existing and new jurisdictions.	S, M
			We may lose market share if we fail to either develop new propositions, or modify existing ones to adapt to changing consumer or client sentiment.	M, L
	Policy	Government or regulatory policy developments designed to address the physical and transitional impacts of climate change may impact the viability of our propositions.	M, L	
Financial (investment)	Transition	Policy	Action from regulators and government to meet the Paris Agreement targets and respond to public sentiment may lead to significant market repricing of asset values and increase the risk of counterparty default.	S, M, L
		Market	Disruptive green technologies may provide a competitive advantage to our peers if we fail to anticipate them in our funds.	M, L
	Physical	Chronic	Our portfolios with significant investments in physical assets, including property and asset-backed securities, may be directly impacted by the physical effects of climate change.	M, L
		Acute/Chronic	Indirect physical effects from climate change may impact the value of assets in our portfolio, for example due to supply chain disruption, mass migration and political instability.	M, L
Financial (property investment)	Transition	Regulation	There is a risk associated with the cost to comply with regulations, including the UK's current Minimum Energy Efficiency Standard (MEES) regulations.	S, M, L
	Physical	Acute	Extreme weather, such as flooding, poses a risk to property assets in terms of repair costs, disruption to construction, and reduced asset value due to extreme weather exposure.	M, L

Risks and opportunities assessment *continued*Table 7: Qualitative risk assessment *continued*

Risk category	Risk impact	Sub-category	Potential impact	Timeframe
Financial (insurance)	Physical	Chronic	An increase in average temperatures, resulting in more regular extreme weather and temperature fluctuations that affect our customers in the UK and Ireland, may lead to inaccuracies in our assumed rates of mortality and morbidity.	M, L
		Chronic	Temperature changes resulting from climate change may increase the frequency of global infectious disease pandemics, in turn impacting the accuracy of our mortality and morbidity assumptions.	M, L
			Political instability, resource shortages and mass migration resulting from climate change may negatively impact levels of mortality, morbidity and expense inflation.	M, L
Operational	Transition	Reputational	Our ability to recruit and retain talent may be negatively impacted if the Group's response to climate change is perceived as inadequate by current and potential future colleagues.	S, M, L
		Policy	Stakeholder interest has increased the potential for legal and/or regulatory challenge, exacerbated by the fast pace of regulatory change.	M, L
	Physical	Acute	Weather-related business disruption may become more frequent due to climate change, as a result of direct impacts to our offices or data centres and those of our key suppliers, and/or impact travel between our offices.	M, L

Table 8: Qualitative opportunity assessment

Opportunity category	Opportunity impact	Sub-category	Potential impact	Timeframe
Strategic	Transition	Market	An opportunity to increase market share resulting from the successful development of new propositions or the modification of existing ones to meet the demand for products that align with or seek to aid the transition to net zero.	S, M, L
		Products and services	A growing demand from customers and clients for ESG investing and net zero aligned investments could open opportunities for new products and services.	S, M
Financial (property investment)	Transition	Products and services	As more occupiers set net zero carbon targets, energy efficient and sustainable certified buildings will become increasingly desirable. Through RLAM's net zero carbon audits, we can identify the potential interventions required to improve a property's operational performance to achieve net zero. This places our Asset Management business in a favourable position to respond to changing occupier preferences and demand for net zero buildings.	S, M
		Resource efficiency	Through energy efficiency improvements from both operations and refurbishment, we will expect to see reduced operating costs. This opportunity is likely to be compounded by volatility and price fluctuations seen recently in the energy market.	M
		Energy security	To reduce reliance on the UK National Grid, there is the opportunity to install solar PV panels on the roofs of buildings to generate onsite renewable energy. This can then be sold to the occupier, creating a financial return. A solar PV feasibility study across 120 of our assets has enabled us to identify the best opportunities to engage with occupiers and seek to install solar PV.	S, M
Financial (Investment)	Transition	Climate transition investments	Potential enhanced returns from investment in companies and sectors that are supporting the climate transition through innovation (e.g. battery technology). This reflects changes in the investment landscape and in policy relating to prioritisation of green strategic objectives.	S, M



Acquiring resilient assets that benefit future generations

In January 2024, RLAM, on behalf of Royal London, acquired 21,000 acres of prime farmland in a £260m joint venture with South Yorkshire Pension Authority. The acquisition marks the first investment by RLAM into agriculture and natural capital.

Located across Cambridgeshire and Lincolnshire, this farmland represents a highly versatile and diverse portfolio with the potential to increase agricultural output and productivity while seeking to employ new environmental strategies. RLAM will seek to reduce environmental impact via innovation, technology and the use of sustainable and regenerative farming techniques while investigating nature-based solutions. Activities may include increasing soil organic matter, lowland peatland restoration, hedgerow afforestation, habitat banking, storage and filtration schemes for improved water quality and renewables. Through lower-carbon agricultural practices, this major acquisition can, in time, contribute to Royal London's commitment towards the RLAM Property net zero goals.

“We are constantly seeking assets that are resilient to future uncertainties. By diversifying into this emerging institutional real asset sector, we show our commitment to investing in assets that will benefit future generations. It will allow us to explore market-leading sustainable practices on a predominantly directly controlled estate and at meaningful scale, while aligning with our long-term focus as a mutual business.”

Mark Evans

Head of Property at RLAM

Metrics and targets

We are committed to achieving net zero emissions from our investment portfolio and operations by 2050. We track progress against our targets using emissions metrics, as we continue to monitor our exposure to climate-related risks.

In this section, we discuss:

- our interim and long-term targets to reach net zero carbon emissions across our investments and operations
- the metrics we use to track our progress and monitor risks.

Our journey to net zero

2024	2025	2030	2040	2050
	<p>Target: Purchase 100% renewable electricity for operations (Scope 2)</p> <p>Metric: Total energy consumption (kWh)</p>	<p>Target: 50% Scope 3 emissions reduction (non-investment)</p> <p>Baseline year: 2019 Metric: Total Scope 3 non- investment emissions (tCO₂e)</p> <p>Target: 50% Scope 3 portfolio emissions reduction</p> <p>Baseline year: 2020 Metric: Carbon footprint Scope 1 and 2 (tCO₂e/\$m invested)</p>	<p>Target: Net zero in RLAM's directly managed investment property assets</p> <p>Metric: Total emissions (Scope 1, 2 and 3) (tCO₂e)</p> <p>Target: Net zero in operations (Scope 1 and 2)</p> <p>Metric: Total Scope 1 and 2 emissions (tCO₂e)</p>	<p>Target: Net zero in RLAM's indirectly managed investment property assets</p> <p>Metric: Total emissions (Scope 1, 2 and 3) (tCO₂e)</p> <p>Target: Net zero Scope 3 emissions (non-investment)</p> <p>Metric: Total Scope 3 non-investment emissions (tCO₂e)</p> <p>Target: Net zero portfolio emissions</p> <p>Metric: Carbon footprint (tCO₂e/\$m invested)</p> <p>The basis and assumptions underlying our climate targets and metrics are set out in detail on page 40.</p>

Our journey to net zero *continued*

The basis and assumptions underlying our targets and metrics

Our climate targets are based on the expectation that governments and policymakers will deliver on commitments to achieve the goals of the Paris Agreement, and that the required actions do not contravene our legal and regulatory obligations to our members and customers. See Royal London's [2024 Emissions Metrics Reporting Criteria](#) for the methodology used to calculate our emissions.

Portfolio emissions targets

Our portfolio emissions targets include assets that are controlled by RLMIS and RLI DAC and are managed on their behalf by RLAM. Across our Group, our commitment includes the regulated investment funds that RLAM manages. It excludes segregated mandates managed on behalf of external clients, but does include support for external clients with assets in segregated mandates where those clients have made an explicit commitment to achieving net zero.

Our portfolio emissions targets are measured against a 2020 baseline and tracked using our Scope 1 and 2 carbon footprint metric, an intensity metric of corporate fixed income and listed equity (tCO₂e/\$m invested). Our net zero portfolio emissions commitment does not currently include investee companies' own Scope 3 (value chain) emissions. We will regularly reconsider this position as the viability of including investee companies' own Scope 3 emissions develops, with a view to supporting customer and client objectives. We will, however, continue to report these emissions, as well as information on the limitations of this data.

Across our property investments we aim to achieve net zero carbon by 2030 for our directly managed property assets and developments, and by 2040 for our indirectly managed property assets from a 2019 baseline. Directly managed property assets are those over which RLAM has complete operational control, or greater than 50% equity share, or joint ventures where it would cover the proportionate amount of emissions. Developments are defined as any new development or major refurbishment that will come online from 2030 onwards. Indirectly managed property assets are managed wholly by the occupier.

We will expand the scope of asset classes included in our targets as net zero methodologies evolve.

The limitations of portfolio emissions data

We recognise there are significant limitations associated with calculating portfolio emissions, including availability of data, timeliness of data, methodology gaps across different asset classes, lack of consistency across the industry, data quality and transparency. Reported emissions are the preferred basis for our Scope 1 and 2 corporate fixed income and listed equity metrics. However, not all companies that we invest in consistently disclose their emissions. To enable higher overall data coverage, reported emissions are supplemented by estimated emissions calculated by our data provider, MSCI. Reported emissions data, also provided by MSCI, is updated on a best-efforts basis following company and sovereign disclosures but may, therefore, not always utilise the most recently reported emissions from our underlying holdings.

Scope 3 emissions are less commonly reported by underlying investee companies, and there is a lack of consistency in how Scope 3 emissions are calculated. Therefore, for Scope 3 emissions we use estimated emissions from our data provider to provide greater

coverage across our portfolio and allow for better like-for-like comparison across companies. However, estimated emissions data can vary significantly across different data providers and is generally considered less accurate than Scope 1 and 2 emissions. As a result, Scope 3 emissions metrics should not be used for comparison across different portfolios. Data quality and coverage challenges are more acute for historic Scope 3 emissions. Coverage for RLMIS 2020 Scope 3 data was 44%, which means there is a high degree of uncertainty around the impact of the total portfolio.

For sovereign debt emissions, The Partnership for Carbon Accounting Financials take a holistic approach, recommending that emissions from sources located within the domestic territory and emissions from imports are included. This approach goes beyond the scope of Nationally Defined Contributions and reported emissions of most sovereign nations, meaning data relies heavily on estimates. The recommended approach seeks to attribute sovereign debt emissions to investors in a way that partially reflects the methodology used to calculate financed emissions from corporations. However, sovereigns and corporates are different and are reported separately. Direct comparisons in emissions metrics across these asset classes should not be made.

All data is supplied for information purposes only and should not be relied upon for investment decisions.

Portfolio emissions data quality improvement

For our corporate fixed income and listed equity assets, data coverage for financed emissions and carbon footprint improved to 88% in 2024 (compared to 80% in 2023). Issuer-level reported emissions covered 78% of these assets in 2024 (73% in 2023). We will continue to be transparent about the quality and coverage of our data and seek improvements to our

emissions disclosures. We use the US dollar (\$) as the currency for attributing carbon emissions in alignment with the primary methodology offered by our data provider, MSCI. For more details of MSCI's methodology, visit www.msci.com.

Operational and value chain emissions targets

Our operational emissions targets include emissions arising directly from operations controlled by our business (Scope 1) and indirectly via consumed energy (Scope 2). Our value chain targets include our emissions arising indirectly through our value chain (Scope 3), excluding portfolio emissions. The baseline year for our operational and value chain emissions targets is 2019. We disclose separately the emissions from the companies in which we invest as our portfolio emissions (Scope 3).

The limitations of value chain data and other environmental data

There are limitations to value chain emissions and other environmental metrics. As our data collection and methodologies improve, reported data is subject to revisions. We apply estimates where data is not available. For more information on how we have improved our data quality throughout 2024, refer to [page 48](#).

Note: Portfolio data and metrics outlined in this section apply specifically to RLMIS. The operational and value chain metrics we outline apply to our wider Group.

Portfolio emissions

Portfolio emissions metrics

Table 9 shows the portfolio emissions metrics we use to monitor progress against our targets and exposure to climate-related risks. Further details on the formulae and methodology adopted to calculate these metrics can be found in [Appendix II](#).

We believe it is also important to report portfolios' alignment with the net zero transition and contribution to climate change mitigation. This is an emerging field, and we are working internally and with other investors to explore good practice. Our focus will remain on reporting outcomes in a credible way. It is particularly important that, as investors, our disclosures do not overstate our level of influence on climate outcomes. For details on how we are developing our position on alignment with the low-carbon transition and climate change mitigation, see [page 20](#).

All data is supplied for information purposes only and should not be relied upon for investment decisions.

Our approach

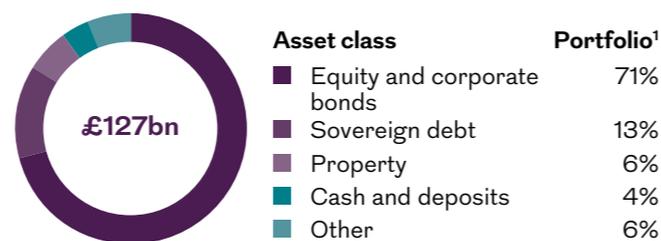
We have calculated emissions metrics for RLMIS corporate fixed income, listed equity, sovereign debt within government bond holdings, and property. This accounts for 90% of RLMIS AUM – see [Figure 7](#). For corporate fixed income, listed equity and sovereign debt, our emissions data is sourced from MSCI. Our sovereign debt AUM includes a small portion that is invested in non-sovereign assets, such as supranational or municipal bonds, for which we have no coverage. Our corporate fixed income and listed equity AUM include some private investments and short-term debt, such as commercial paper and money markets.

The calculations of our carbon emissions metrics are based on both reported and estimated emissions. The currency used for attributing carbon emissions is the US dollar (\$). Find further details on the methodologies adopted by MSCI in [Appendix II](#).

For corporate fixed income and listed equity, we have reported Scope 1, 2 and 3 portfolio emissions where data is available.

Emissions metrics for RLMIS property assets are calculated by RLAM, which manages 100% of RLMIS property assets. Find further details of the methodology in [Appendix II](#).

Figure 7: RLMIS portfolio asset class breakdown (31 December 2024)



1. Rounded to the nearest 1%.

Table 9: Portfolio emissions metrics

Metrics	Units	Asset class	Purpose
Financed emissions	Financed emissions tCO ₂ e	Corporate fixed income, listed equity, property, sovereign debt	This metric is a suitable measure of our current position as it shows absolute financed emissions. However, since this metric is sensitive to changes in portfolio size, we use it in conjunction with other metrics to track our progress towards climate targets.
Carbon footprint	tCO ₂ e/\$m invested	Corporate fixed income, listed equity	This is our primary metric for measuring progress against our carbon reduction targets. This metric normalises emissions over investment value, which enables comparisons over time. However, it is sensitive to share price and market forces.
Weighted Average Carbon Intensity	tCO ₂ e/\$m revenue	Corporate fixed income, listed equity	This metric monitors our current exposure to climate risk. This is an alternative measure of intensity to carbon footprint that is not as sensitive to share price. However, this metric is sensitive to other factors, such as inflation and other market forces.
Data coverage	% coverage	N/A	This metric monitors the portion of assets for which we have emissions information (reported or estimated by MSCI).
Sovereign debt production emissions intensity	tCO ₂ e/\$m PPP-adjusted GDP	Sovereign debt	This metric monitors exposure to climate risk within our sovereign debt assets. This metric reflects production intensity of sovereign economies. Production emissions are normalised by Purchasing Power Parity-adjusted Gross Domestic Product (PPP-adjusted GDP).
Sovereign debt consumption emissions intensity	tCO ₂ e/capita	Sovereign debt	This metric monitors exposure to climate risk within our sovereign debt assets. This metric reflects consumption intensity of sovereign economies. Consumption emissions are normalised per capita.

Portfolio emissions *continued***Analysis**

During 2024, RLMIS AUM increased from £118bn to £127bn. Table 10 on [page 43](#) shows the emissions arising from our corporate fixed income, listed equity, sovereign debt and property investments.

Corporate fixed income and listed equity

For our corporate fixed income and listed equity assets, Scope 1 and 2 financed emissions have reduced by 23% since 2020 (our baseline year). Our total Scope 1 and 2 emissions for 2024 were 3.9MtCO₂e. Listed equity assets accounted for 2.9MtCO₂e and the remaining 1.0MtCO₂e arose from corporate fixed income assets, with the emissions attributed to each asset class based on the combined portfolio data coverage. For further detail of the methodology and data coverage, see [page 85](#).

The carbon footprint (tCO₂e/\$m invested) of these assets decreased by 35% since 2020 and by 19% year-on-year due to several factors. More detail on these factors can be found in our attribution analysis on [page 44](#).

The Weighted Average Carbon Intensity (tCO₂e/\$m revenue) – an alternative measure of intensity to carbon footprint based on revenue and, therefore, less sensitive to share price fluctuations – also reduced for our corporate fixed income and listed equity assets by 33% since 2020, including by 10% over the past year.

Scope 3

Our Scope 3 carbon footprint decreased 19% year-on-year and 27% since our baseline year. Financed emissions and the Weighted Average Carbon Intensity of our Scope 3 emissions metrics also reduced. This reflects a similar trend in our Scope 1 and 2 corporate fixed income and listed equity portfolio emissions metrics.

We anticipate that the data we use to track Scope 3 emissions will continue to improve in the future, as more investee companies report their emissions and as the methodologies for estimating these emissions become more refined. There are inherent data limitations across Scope 3 emissions categories. For more information on these limitations, refer to [page 40](#).

Sovereign debt

We use the most recently available data from our data provider in our reporting. Predominantly due to a deadline amendment by the United Nations Framework Convention on Climate Change (UNFCCC) that extended when sovereigns must disclose emissions, updated data was not available for our year end 2024 report. This report, therefore, uses the same emissions data to calculate our sovereign debt metrics as our year end 2023 disclosure. Year-on-year changes in our sovereign debt metrics only reflect changes in our portfolio composition, growth and coverage, and do not reflect actual changes in sovereigns' emissions.

Financed emissions associated with our sovereign debt portfolio increased by 1% since 2023. Consumption emissions intensity increased by 6% over the past year. Consumption emissions are the emissions attributed to goods and services consumed in a domestic territory. Production emissions intensity increased 5% since 2023. Production emissions are the emissions

originating from goods and services produced within a domestic territory.

Property

Scope 1 and 2 emissions from our property investments have decreased by 10% since 2020 (our baseline year), as of 30 September 2024¹. This reflects our focus on improving the operational performance of our directly managed property assets.

Scope 2 emissions from our property investments has been the biggest driver in this reduction. Since the publication of our Net Zero Carbon Pathway in 2021, we have been focusing on maximising the operational performance of our landlord-controlled spaces. This is through initiatives such as including an LED light replacement programme across the external lighting in our retail parks and implementing a Building Management System optimisation software program in our multi-let offices.

Scope 3 emissions from our property investments have increased by 50% since 2020. This is largely attributed to an increase in our embodied carbon emissions, including the completion of six development projects during 2024 and one in 2023. Embodied carbon emissions are subject to year-on-year fluctuations depending on our development activity. However, to ensure we are minimising our environmental impact where possible, we aim to adhere to best practice sector-specific embodied carbon limits across all new builds and major refurbishments, as outlined in our New Construction and Major Refurbishment Sustainability Standards.

1. The investment property reporting period is 1 October 2023 to 30 September 2024, due to the timing of data availability.



Portfolio emissions *continued*

Table 10: RLMIS portfolio emissions disclosure

	2024 ²	2023 ²	2020 (baseline) ²	Year-on-year change ³	Change against baseline ³
RLMIS AUM (£bn)¹	127	118	114	8%	11%
Corporate fixed income and listed equity					
AUM (£bn) ⁴	90	82	70	10%	28%
Scope 1 and 2					
Financed emissions (MtCO ₂ e) ⁵	● 3.9	4.5	5.1	-13%	-23%
Carbon footprint (tCO ₂ e ⁵ /\$m invested)	● 35	44	54	-19%	-35%
Data coverage (%) ⁶	● 88%	80%	67%	9%	31%
Weighted Average Carbon Intensity (tCO ₂ e ⁵ /\$m revenue)	● 78	86	117	-10%	-33%
Data coverage (%) ⁶	● 88%	88%	67%	0%	31%
Scope 3					
Financed emissions (MtCO ₂ e) ⁵	32.8	37.3	38.0	-12%	-14%
Carbon footprint (tCO ₂ e ⁵ /\$m invested)	292	359	399	-19%	-27%
Data coverage (%) ⁶	88%	80%	44%	9%	100%
Weighted Average Carbon Intensity (tCO ₂ e ⁵ /\$m revenue)	601	690	740	-13%	-19%
Data coverage (%) ⁶	87%	80%	44%	9%	99%
Sovereign debt					
AUM (£bn) ⁷	16	16	20	2%	-19%
Financed emissions (MtCO ₂ e) ⁵	● 4.6	4.6	7.1	1%	-35%
Production emissions intensity (tCO ₂ e ⁵ /\$m PPP-adjusted GDP)	● 151	144	160	5%	-6%
Consumption emissions intensity (tCO ₂ e ⁵ /capita)	● 12	11	11	6%	6%
Data coverage (%) ⁶	● 96%	97%	98%	0%	-1%
Property⁸					
AUM (£bn)	8	7	8	4%	0%
Scope 1 and 2 emissions					
Financed emissions (tCO ₂ e) ^{5,9,10}	9,433	8,329	10,504	13%	-10%
Scope 3 emissions					
Financed emissions (tCO ₂ e) ^{5,10}	199,029	113,896	132,325	75%	50%
Intensity Scope 1, 2 and 3					
Property emissions intensity (kgCO ₂ e/m ²)	64	48	57	32%	13%

Independent assurance

We engaged KPMG LLP to perform independent limited assurance over selected climate metrics. These figures are marked with a ● symbol. These selected metrics can be found in the table to the left and on [page 50](#).

The assurance engagement was performed in accordance with the International Standard on Assurance Engagements (UK) 3000 and the International Standard on Assurance Engagements 3410. You can read the independent assurance statement in full, available at www.royallondon.com.

1. Represents the overall amount of the Group's investments excluding assets managed on behalf of third parties. The disclosure includes assets managed by external asset managers (<5% total AUM), assets of the Group's pension schemes (<2%) and assets controlled by RLI DAC (<1%).
2. Data for year ended 2024, 2023 and 2020, respectively.
3. Year-on-year change represents the percentage change in the year ended 2024 metric from the year ended 2023 metric. Change from baseline represents the percentage change in the year ended 2024 metric from our baseline year, the year ended 2020 metric. Percentage changes are derived from the underlying unrounded data and so may not match the calculation based on the rounded figures in the table.
4. Corporate fixed income and listed equity AUM includes some private investments and short-term debt, such as commercial paper and money market instruments.
5. tCO₂e represents the estimated amount of emissions, measured in metric tonnes of carbon dioxide equivalent. MtCO₂e represents one million metric tonnes of carbon dioxide equivalent.
6. Proportion of assets with complete data. Complete data is defined as the available issuer-level data for all data points required for calculating a metric. For all metrics, this includes data on investment value and issuer emissions. Beyond this, corporate fixed income and listed equity carbon footprint and financed emissions metrics also require data on issuer Enterprise Value Including Cash; Weighted Average Carbon Intensity requires issuer revenue; sovereign debt financed emissions and production intensity metrics require data on Purchasing Power Parity-adjusted Gross Domestic Product; and sovereign debt consumption intensity requires capita data.
7. Sovereign debt AUM includes a small amount of non-sovereign investments such as supranational and municipal investments. These are among the assets for which we have no coverage (<4% total AUM).
8. The investment property emissions reporting period is 1 October 2023 to 30 September 2024, due to the timing of data availability.
9. Property Scope 2 emissions reflect location-based emissions. 2024 Scope 1 and 2 emissions have been adjusted to reflect actual data becoming available in lieu of estimates, resulting in a decrease of 39tCO₂e since our 2024 Annual Report and Accounts disclosure.
10. We engaged Jones Lang LaSalle to perform independent limited assurance over RLAM's Scope 1, 2 and 3 property investment emissions. The assurance engagement was performed in accordance with AA1000AS v3 – Type 2, Moderate Assurance.

Portfolio emissions *continued*

Attribution analysis of our carbon footprint

Carbon footprint is the primary metric used for tracking progress against our portfolio carbon reduction targets. To understand the factors contributing to the decrease in the Scope 1 and 2 carbon footprint of our investments, we calculated the extent to which change is driven by decarbonisation as opposed to other factors, such as market movements.

Results

Over 2024, the carbon footprint of our portfolio decreased by 19.4%. External market forces leading to changes in the value of our investments were a key driver of this reduction, with decarbonisation of the companies in our portfolio also contributing. The Scope 1 and 2 carbon emissions of our investee companies reduced by 4.4%. This means that less than a quarter of our carbon footprint decrease was driven by emissions reductions. A 6.1% reduction was due to changes in our investee companies' Enterprise Value Including Cash (EVIC). We use EVIC, which assesses the total value of a company, as the attribution factor when calculating a company's carbon footprint. The weighting of investee companies within our portfolio, which can be influenced by external market forces and investment decisions, was another material factor. It contributed a 4.5% reduction in our carbon footprint.

For further detail of our attribution analysis, including the methodology and limitations behind this analysis, see [pages 82 to 83](#).

Forward-looking and portfolio alignment climate metrics

We described the emissions associated with our portfolio in 2024 in the previous section. Forward-looking climate metrics support these disclosures by providing insight into the potential future trajectories of emissions and climate risk. We consider the following forward-looking metrics:

- **Climate Value-at-Risk (C-VaR):** An estimate of the possible impacts of transition and physical climate risks on the value of portfolios under a range of plausible climate scenarios.
- **Implied Temperature Rise (ITR):** A modelled assessment of alignment with global climate targets and the trajectory of our portfolio emissions over time.
- **Companies with targets across all emission scopes:** A measure of the alignment of our portfolio with carbon reduction targets across all three corporate emission scopes.
- **Companies with Science Based Targets initiative (SBTi)-approved targets:** A measure of the alignment of our portfolio with carbon reduction targets, that have been externally verified by the SBTi.

It is important to consider the limitations of these metrics in assessing portfolio performance and trajectory.

Limitations

Forward-looking metrics, such as C-VaR and ITR, rely on complex climate and financial modelling. These models typically exclude widely accepted material climate risks that cannot be modelled (including the impacts from external policy decisions, market sentiment and climate tipping points) and rely on material subjective assumptions (including viability of investee net zero plans and assumed sector-level transition pathways).

While temperature alignment metrics can be a useful tool to provide a high-level assessment of alignment with the goals of the Paris Agreement, we must use them alongside more granular and comprehensive assessments to provide a more accurate picture of a company's sustainability performance. We will continue to assess the usefulness of forward-looking climate metrics on an ongoing basis.

The limitations of these metrics are set out in detail in [Appendix II](#) and discussed at a high level below.

Climate Value-at-Risk

There are several fundamental limitations with the use of C-VaR as a forward-looking climate metric:

- **Scope:** C-VaR tends to neglect much of the broader social, environmental and economic impacts of climate change and is limited in its ability to consider long-term risks. As such, it does not capture the full range of longer-term foreseeable risks that may arise from climate change.
- **Comparability:** Comparability between data providers, across different years and between financial institutions is limited, as the methodology underpinning C-VaR continues to evolve, and data providers and financial institutions take different approaches to its calculation.

- **Usefulness:** Although C-VaR provides insight into potential risks and opportunities related to climate change and their potential impact, it does not support the user to determine the best course of action for mitigating and managing climate risk.

C-VaR relies on necessary climate-modelling and socio-economic assumptions as well as cost and valuation calculations that reduce confidence in the metric. Given the limitations and reliance on modelling assumptions, we report on C-VaR qualitatively, not quantitatively. See [Appendix II](#) for further details on the assumptions underpinning C-VaR metrics.

Implied Temperature Rise

ITR is similar to C-VaR in that it is narrow in scope and, in isolation, lacks comparability and usefulness. The inputs to ITR models are based on several assumptions with inherent uncertainties, including assumptions related to carbon budgets, rates of population and economic growth, and emissions trajectories over time.

Binary target measurement

The usefulness of binary target measurement is also limited. It provides limited detail of the climate targets set by investee companies, beyond whether or not they have set targets and if these are SBTi-approved.

While the SBTi provides a source of validation for corporate climate targets, it is not necessary for all credible net zero targets to be SBTi-approved. Conversely, MSCI's 'companies with targets across all scopes' metric is susceptible to including companies that have set weak or immaterial targets. By using both these binary metrics in conjunction, we hope to be as holistic as possible in our judgement of the alignment of our investments with net zero targets while considering the limitations of each metric individually.

Portfolio emissions *continued***Climate Value-at-Risk (C-VaR)**

C-VaR estimates the impact of physical and transition risks of different climate scenarios on future returns of a portfolio. This metric evaluates potential policy impacts, technology opportunities and physical climate risk under different global warming scenarios. It provides insight into the potential stress on market valuations and translates climate-related costs into possible valuation impacts.

We calculated our C-VaR across three possible pathways, based on those developed by the NGFS. We used MSCI data to assess the total impacts of transition and physical risks on the value of our corporate fixed income and listed equity assets from the years 2023 to 2100 for each pathway. The scenarios observed and their key characteristics are provided in Table 11.

Table 11: C-VaR scenarios

Scenario	Scenario summary
Delayed transition	Assumes global annual emissions do not decrease until 2030. Strong policies are then needed to limit warming to below 2°C. Negative emissions are limited.
Below 2°C	Gradually increases the stringency of climate policies, giving a 67% chance of limiting global warming to below 2°C.
Nationally Determined Contributions (NDCs)	Includes all pledge policies, even if not yet backed up by implemented effective policies.

Results

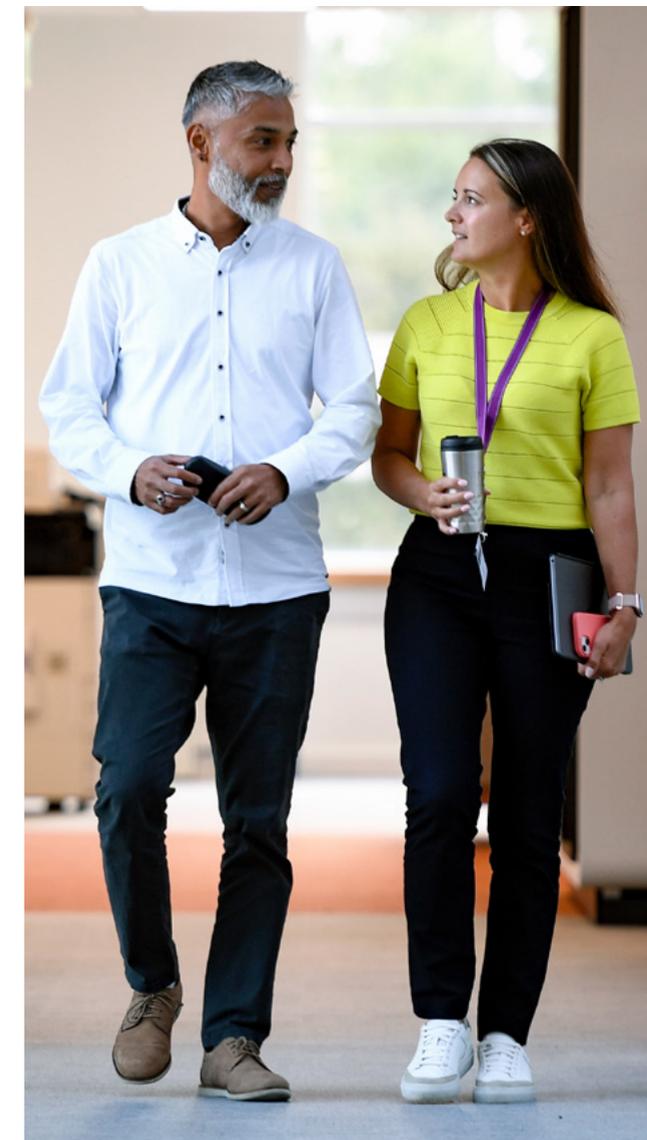
Using the three scenarios described in Table 11, we performed analysis on our 2024 portfolio C-VaR. There was significant transition risk in the Below 2°C scenario, partially mitigated by the incremental pace of change. In this scenario, physical risks were less acute than in other scenarios we assessed due to immediate and substantial global efforts to limit global warming.

In the Delayed transition scenario, there was increased transition risk, exacerbated by uncoordinated and disruptive policy action required to limit global warming to below 2°C. Physical risks were increased from the Below 2°C scenario, but the most severe physical impacts are assumed to be avoided by limiting global warming to below 2°C through delayed transition.

The NDCs scenario poses the least transition risk to our portfolio, likely due to pledged policies being fully or partially priced into the market. However, the NDCs scenario is expected to fail to limit warming below 2°C. As such, the physical risk associated with this scenario is the most acute of the scenarios assessed.

Transition and physical risk

Our analysis finds that physical risk in the NDCs scenario is not as severe as the transition risk in the Delayed transition scenario. The modelling for C-VaR physical risk from climate change is present in each scenario; however, we believe that the physical impact of a future where warming exceeds 2°C poses the most severe threat to our portfolio value and the ability of markets to recover. This assumption is supported by the IPCC's 2023 Climate Report, which stated that "risks and projected adverse impacts and related losses and damages from climate change escalate with every increment of global warming".



Portfolio emissions *continued***Implied Temperature Rise (ITR)**

ITR is a portfolio-alignment metric. It seeks to estimate the global warming outcome from the projected emissions of a company, if the global economy followed the same trajectory.

Using this metric, we can estimate the percentage of our corporate fixed income and equity holdings that are assessed as having ITRs aligned to global warming of below 2°C and 1.5°C, respectively¹:

- 45% of our corporate fixed income and listed equity assets have ITRs that are aligned² with the goal of limiting temperature increase to below 2°C. In 2023, 61% were aligned².
- 20% of our corporate fixed income and listed equity assets have ITRs that are aligned² with the goal of limiting temperature increase to below 1.5°C. In 2023, 38% were aligned².

The modelling that MSCI uses for this metric has improved. As of 2024, it includes a credibility assessment of companies' stated targets when projecting a temperature trajectory. This has reduced the percentage of our portfolio assessed as being aligned with a below 2°C and 1.5°C temperature rise. While this is a positive improvement to the modelling, significant limitations remain to the usefulness of this metric.

While 45% of our corporate fixed income and listed equity investment value is assessed as having a below 2°C trajectory, only 31% of our emissions are from companies aligned to this trajectory. We continue to seek investment and engagement opportunities that support our climate commitments and will monitor our ITR to help assess our progress.

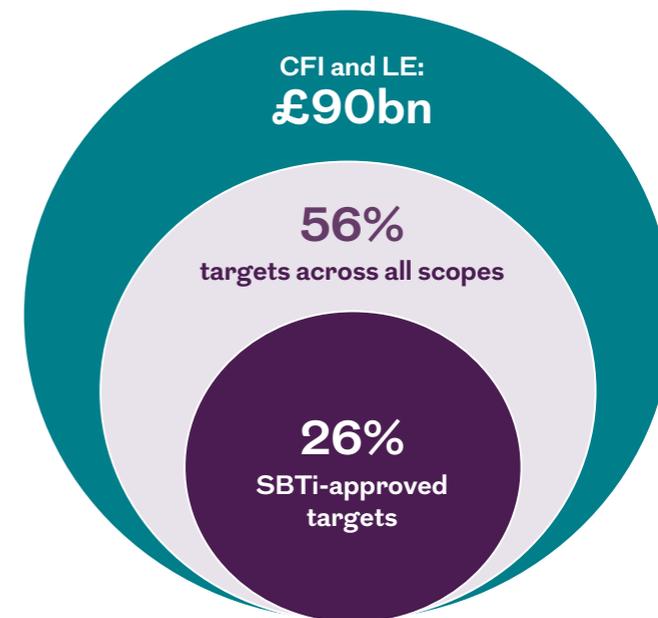
ITR across RLMIS corporate fixed income (CFI) and listed equity (LE) assets, as of year end 2024¹**Binary target measurement**

Our binary target metrics show the percentage of portfolio value invested in companies with emissions reduction targets. We consider portfolio alignment using the following binary target metrics³:

- **Companies with targets across all emission scopes (%):** The percentage of companies in our corporate fixed income and listed equity asset classes with published climate targets for Scopes 1, 2 and 3.
- **Companies with SBTi-approved targets (%):** The percentage of companies in our corporate fixed income and listed equity asset classes with climate targets approved by the SBTi.

While we believe that tracking the alignment of our portfolio with SBTi-approved targets is useful, we do not believe that SBTi approval is the sole mark of a credible net zero target. This is why we also monitor the percentage of our investee companies with targets across all scopes, using data from MSCI's 'companies with targets across all scopes' metric.

56% of our corporate fixed income and listed equity holdings have published climate targets across all emissions scopes, and 26% have SBTi-approved targets. Consequently, 44% of our holdings across these asset classes have not published climate targets across all scopes.³

Emissions reduction targets across RLMIS corporate fixed income (CFI) and listed equity (LE) assets, as of year end 2024³

1. Based on 88% portfolio coverage.
2. Aligned in this case means the model projects that emissions reductions will be reduced sufficiently to meet Paris Agreement goals for 2°C and 1.5°C, respectively.
3. Target across all scopes is based on 93% portfolio coverage.

While forward-looking information is useful, we do not rely on these metrics for investment decisions or assessing climate risk exposure due to the limitations described on page 44 and in further detail in Appendix II. This allows us to consider more nuanced qualitative assessment and judgement when making decisions.

Portfolio emissions *continued***Fossil fuels**

We recognise that we have a part to play in the energy sector's net zero transition and that use of fossil fuels must reduce significantly. See [page 19](#) for more information on how we are developing our position on fossil fuel investments.

Our exposure to fossil fuel activity within RLMIS corporate fixed income and listed equity assets is detailed in Table 12. Some metrics within Table 12 overlap in terms of scope, for example, Arctic oil and gas exposure is also captured within overall oil and gas exposure. In addition, companies may be involved in a range of fossil fuel activities and, consequently, included in multiple metrics.

These metrics can help identify the extent to which our portfolio may be exposed to transition risk, although we acknowledge that they are simplistic and they are, therefore, not used in investment decisions. These metrics are significantly limited because they:

- do not show companies' exposure to fossil fuels as a proportion of their revenue, nor exposure to 'green revenues' (such as from renewables) – both of which impact a company's overall transition risk
- do not indicate where companies with fossil fuel exposure have expressed an intention to align with a transition pathway.

We will continue to evaluate the metrics we use to track fossil fuel activity and report more meaningful and granular metrics as these become available.

Table 12: Exposure to fossil fuel activities

Metric ¹	% of RLMIS corporate fixed income and listed equity portfolio ²
Oil and gas exposure	10%
Oil and gas extraction and production	3%
Arctic oil and gas production	0%
Shale oil and gas production	3%
Thermal coal production	1%
Metallurgical coal production	1%
Thermal coal generation	2%
Tar oil sands	2%

1. These metrics measure the percentage of instruments (by value) held in the portfolio that have any exposure to revenues from fossil fuel activities, as defined in Appendix II on [page 77](#). They do not measure the total revenue derived from these activities. Rounded to the nearest 1%.
2. The data coverage for these metrics is 88%. Data provided by MSCI.

For definitions of each type of activity, see [page 77](#).

Future considerations for portfolio metrics

We will continue to improve our approach to data and aim to use the most appropriate climate data and methodologies available, recognising that data and methodological gaps should not be a limiting factor to making climate-related disclosures in line with FCA guidance.

In the future, we plan to:

- expand our internal capability to apply insights from our climate data to decision making, including analysis of the drivers of our emissions metrics to identify opportunities for improvement
- review our approach to calculating portfolio emissions to identify opportunities for improvement
- address the recommendations identified during the assurance of our 2024 portfolio emissions
- continue to review good practice and use the most appropriate, reliable and useful metrics and targets.



Operational and value chain emissions

Our operational and value chain metrics

Our targets

We recognise the contribution of our own operations and value chain to climate change. In line with our portfolio emissions target, we have committed to reaching net zero across our Group-level operational emissions by 2050, with Scope 1 and 2 emissions reaching net zero by 2030. More detail on our net zero targets is on [page 39](#).

Our operational emissions targets are set for the Royal London Group and, therefore, all metrics are disclosed at a Group level. Our strategy to meet these targets is on [page 21](#). More detail on the basis and assumptions underlying our targets and metrics is on [page 40](#).

Our approach

Our external consultant Mitie Energy was appointed to carry out our 2024 GHG emissions calculations. This was conducted in line with the GHG Protocol Corporate Standard. For all non-investment-related carbon emissions, estimates were applied where data was not available. See our [2024 Emissions Metrics Reporting Criteria](#) for the methodology used to calculate each category of emissions.

Improving our data collection processes

As described on [page 40](#), there are limitations to our value chain and environmental metrics, and we continue to improve how we collect and process this data. In 2024, these improvements resulted in revisions to the calculations in most of the 2023 and 2019 baseline operational and value chain emissions and other environmental metrics. In 2025, we will implement a third-party data solution to support improvements to data collection as well as calculation and reporting of these metrics.

Progress during 2024

Group target	Metric	Progress to date
Reach net zero direct operational emissions (Scope 1 and 2) by 2030	Total Scope 1 and 2 emissions ¹ (tCO ₂ e)	93% reduction since 2019 (market-based) and 68% reduction since 2019 (location-based) ²
Reach net zero indirect value chain emissions (Scope 3 non-investment-related) by 2050, with a 50% reduction by 2030	Total Scope 3 non-investment related emissions (tCO ₂ e)	47% reduction since 2019
Purchase 100% renewable electricity for operations (Scope 2) by 2025	Total energy consumption (kWh)	100% of our electricity is from renewable sources

More than

241,000

protection customers registered to use our My Royal London portal by the end of 2024, helping reduce paper usage.

At the end of 2024, more than

80%

of our company cars were electric vehicles.

More than

1,500

colleagues surveyed on commuting and homeworking habits, informing our approach to reducing emissions.

1. Total Scope 1 and 2 emissions refers to those arising from sites which we own, or where we have operational control.
2. Further information on Scope 2 (location-based and market-based) emissions calculations can be found in the Metrics description and methodology section on [page 80](#).
3. Emissions from our operations and value chain, including our investments, are classified into three scopes.

Our GHG emissions scopes³

Scope 1

Emissions resulting directly from our business activities, such as company cars and gas used in our buildings.

Scope 2

Emissions resulting indirectly through the purchase of energy, such as through generation of the electricity we purchase to light and power our buildings.

Scope 3

All other indirect emissions resulting from our business activities across our value chain, such as purchased goods and services, travel and waste. Emissions arising from our investments are also part of Scope 3 and we report these as our 'portfolio emissions' (see [pages 41 to 47](#)).

Operational and value chain emissions *continued*

Our 2024 operational and value chain emissions, and other environmental metrics are shown in Tables 13 and 14 on page 50. These are presented against equivalent measurements, restated where applicable (see footnotes), for 2023 and our baseline year, 2019.

Analysis

Our operations

Our Scope 1 and 2 operational emissions decreased during 2024, reducing by 19% for location-based emissions and 79% for market-based emissions. In total, our location-based emissions have reduced by 68% (see Figure 8) and market-based by 93% since our 2019 baseline. Our overall energy consumption also reduced by 24% during 2024 as we improved energy efficiency across our offices. In 2024, our UK business represented 89% of our Scope 1 and 2 operational emissions and 98% of our energy consumption. In 2023, the figures were 96% and 98% respectively. The significant reduction in our market-based emissions is due to securing renewable energy across our operational estate, through purchasing of REGO certificates. See Figure 9 for our Scope 1 and 2 emissions split by source.

Our non-investment value chain

Scope 3 non-investment emissions reduced by 4% since 2023. The largest contributors to our value chain emissions continued to be our supply chain, employee commuting and homeworking, and business travel. As shown in Figure 10, total Scope 3 emissions reduced by 47% since our 2019 baseline, against an interim target of 50% by 2030. While this represents a significant reduction, the data is based upon a number of estimates and our emissions may increase in future reporting as Royal London and our suppliers improve data collection and quality.

Our business travel emissions reduced by 11% in 2024, supported by company-wide limits on non-essential business travel during August and the setting of individual travel reduction pledges by senior leaders across the Group. We also enhanced our strategy to engage with suppliers and colleagues. For more information, refer to [page 21](#).

Other environmental metrics

Across our environmental metrics, we are on track to deliver our 2025 targets on internal and external paper reduction per policy, and waste and water reduction per full-time equivalent.

Since our 2019 baseline, we have reduced the volume of paper we send externally per policy and use internally per policy by 51% and 84%, respectively.

Over the past year, we enhanced the methodology used to estimate waste generation and water use. In 2024, reported waste increased by 15% from the restated 2023 value, primarily due to the closure of three properties where additional waste disposal activity was required.

While our strategy continues to focus on reducing consumption across paper, waste and water, there may be year-on-year increases across these environmental metrics due to business activities. An example of this is that there will be associated waste disposal in 2025 as we refurbish our new Edinburgh Waverley office. Where business activities may impact our environmental performance, we will endeavour to minimise this in line with our strategy.

Figure 8: Scope 1 and 2 emissions

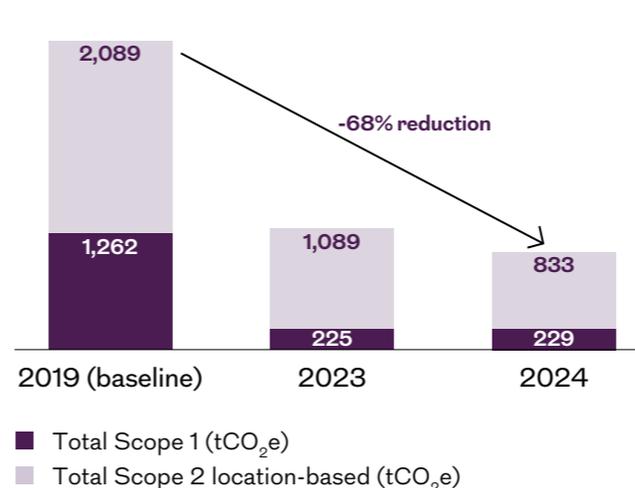
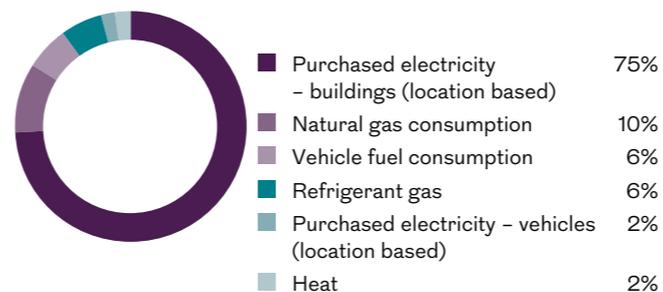
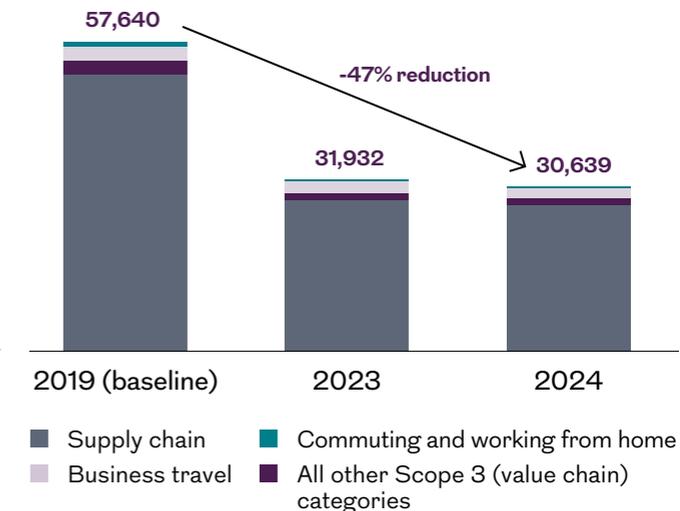


Figure 9: 2024 Scope 1 and 2 emissions split by source¹



1. Rounded to the nearest 1%.

Figure 10: Scope 3 non-investment value chain emissions



Operational and value chain emissions *continued***Table 13: Operational and value chain emissions**

		2024 ¹	2023 ¹	2019 (baseline) ¹	Year-on- year change	Change against baseline	Target
Scope 1 direct GHG emissions (tCO₂e)²		229	225	1,262	2%	-82%	60% absolute reduction by 2025 and net zero by 2030
Scope 2 indirect GHG emissions (tCO₂e)²	Market-based	53	1,136	2,802	-95%	-98%	Purchase 100% renewable energy for electricity by 2025
	Location-based	833	1,089	2,089	-24%	-60%	
Total Scope 1 and 2 (market-based) emissions (tCO ₂ e) per sqm ³		0.01	0.03	0.13	-72%	-94%	
Scope 3 GHG (value chain) emissions (tCO₂e) consisting of the following categories:							
Category 1. Purchased goods and services ^{2,4}		26,620	25,984	50,724	2%	-48%	
Category 2. Capital goods ^{2,4}		626	2,155	816	-71%	-23%	
Category 3. Fuel and energy-related activities ²		310	398	699	-22%	-56%	
Category 4. Upstream transportation and distribution ^{2,4}		2	4	14	-56%	-86%	
Category 5. Waste generated in operations ^{2,4}		4	9	45	-57%	-92%	
Category 6. Business travel ^{2,5}		1,117	1,250	2,537	-11%	-56%	
Category 7. Employee commuting and homeworking		1,960	2,132	2,552	-8%	-23%	
Category 13. Downstream leased assets		-	-	253	-	-100%	
Total Scope 3 GHG (value chain) emissions (tCO₂e)^{2,4,6}		30,639	31,932	57,640	-4%	-47%	Reduction of 50% by 2030 and net zero by 2050
Total Scope 3 emissions (tCO ₂ e) per sqm ³		0.84	0.68	1.80	24%	-53%	

Table 14: Other environmental metrics

		2024	2023	2019 (baseline)	Year-on- year change	Change against baseline	Target
Paper use (t)²	Total	590	537	1,111	10%	-47%	
	Internal paper per policy (g) ^{4,7,8}	2	2	9	-24%	-84%	Reduction of 90% per policy by 2025
	External paper per policy (g) ^{4,7,9}	94	85	191	10%	-51%	Reduction of 50% per policy by 2025
Waste (t)^{2,4}	Total	222	193	802	15%	-72%	Reduction of 50% per FTE ¹⁰ by 2025 and continue to send zero waste to landfill
	Per FTE ¹⁰	0.05	0.04	0.17	25%	-71%	
Water (m³)^{2,4,11}	Total	12,086	23,619	39,650	-49%	-70%	
	Per FTE ¹⁰	2.67	5.49	8.32	-51%	-68%	Reduction of 15% per FTE ¹⁰ by 2025

● Limited Assurance as described on page 43.

1. Data for year ended 2024, 2023 and 2019, respectively.
2. 2023 data for this metric has been restated due to errors identified and/or changes in methodology. For further information on these restatements, refer to pages 29 to 31 of our 2024 Emissions Metrics Reporting Criteria (see page 40).
3. Metres squared.
4. 2019 data for this metric has been restated due to errors identified and/or changes in methodology. For further information on these restatements, refer to pages 29 to 31 of our 2024 Emissions Metrics Reporting Criteria (see page 40).
5. Data excludes Wealth Wizards, Responsible Life Limited and Responsible Lending Limited.
6. Categories 8, 9, 10, 11, 12, 13 and 14 of Scope 3 were not applicable to Royal London in 2023 and 2024. Category 15 (investments) emissions data is reported on page 43.
7. As at 31 December 2024, internal and external paper per policy metrics do not include policies administered by Aegon and Capita.
8. Internal paper data is based on volumes purchased for internal use from known paper suppliers. This data excludes Wealth Wizards, Responsible Life Limited and Responsible Lending Limited.
9. External paper data is based on reported volumes from known paper suppliers. This data excludes Wealth Wizards, Responsible Life Limited and Responsible Lending Limited.
10. Full-time equivalent.
11. Cubic metres.

Appendix I: Entity-level reporting

In this section, we provide entity-level disclosures for each of our entities in scope of FCA's ESG sourcebook regulation.

The entity-level reports complement and refer to content included in the Royal London Group disclosures. This includes details of the strategies, policies and actions taken at the Group level that are applicable to the individual entities which comprise the Group.

In this section, we discuss:

- how climate-related risks and opportunities are identified, assessed and managed for these entities
- governance structures in place across these entities to manage
- climate-related risks and opportunities
- metrics used to monitor climate-related risks and progress against targets.

TCFD compliance summary

In the following sections, we provide entity-level disclosures against the TCFD recommendations for each of our entities within scope of the FCA's PS 21/24 requirements. These entity-level reports supplement and make reference to the content included in the Royal London Group disclosures in the main body of this report.

The table below indicates where we have reported against each TCFD recommendation in our report for each in-scope entity.

TCFD pillar	TCFD recommendation	RLMIS	RLAM Limited	RLUM	RLUTM
Strategy	Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term	35-36	35-36	67	68
	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning	8-21	55	67	68
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	33-34	66	67	68
Governance	Describe the Board's oversight of climate-related risks and opportunities	24-25	56-57	67	68
	Describe management's role in assessing and managing risks and opportunities	26	56-58	67	68
Risk management	Describe the organisation's processes for identifying and assessing climate-related risks	31	59-60	67	68
	Describe the organisation's processes for managing climate-related risks	32	59-60	67	68
	Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management	30-32	30-32	67	68
Metrics and targets	Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	38-50	61-66	67	68-70
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks	43, 50	64-65	67	68-69
	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	39, 43, 50	64-65	67	68-69



The Royal London Mutual Insurance Society Limited: Entity-level report



The Royal London Mutual Insurance Society Limited is authorised by the Prudential Regulation Authority (PRA) and regulated by the FCA and the PRA. It is overseen by the RLMIS Board and is part of the Royal London Group (see [page 4](#) for an overview of the Royal London Group).

The approach of RLMIS to managing climate-related risks and opportunities is consistent with that of the Royal London Group. RLMIS compliance with TCFD recommendations is, therefore, evidenced through content in the main body of this report.

Compliance statement

The disclosures for RLMIS, including any Group disclosures cross-referenced, comply with the requirements under the FCA's ESG sourcebook regulation (ESG 1A and ESG 2).

No third-party climate disclosure reports are referenced in this report. We use data supplied by third-party providers and the nature of this means that, while we take reasonable efforts to evaluate data, there are limits to our ability to oversee the validity and accuracy of the data used.

Barry O'Dwyer

Group Chief Executive Officer

Royal London Asset Management Limited: Entity-level report



Royal London Asset Management Limited (RLAM Limited) is an FCA-regulated asset manager within the Royal London Asset Management business. As a wholly owned indirect subsidiary of RLMIS, RLAM Limited is managed separately to RLMIS and is overseen by the RLAM Limited Board (see [page 4](#) for an overview of the Royal London Group).

Compliance statement

The disclosures for RLAM Limited, including any Group disclosures cross-referenced, comply with the requirements under the FCA's ESG sourcebook regulation (ESG 1A and ESG 2). No third-party climate disclosure reports are referenced in this report. We use data supplied by third-party providers and the nature of this means that, while we take reasonable efforts to evaluate data, there are limits to our ability to oversee the validity and accuracy of the data used.

A handwritten signature in black ink, appearing to read 'Hans Georgeson'.

Hans Georgeson

Chief Executive Officer,
Royal London Asset Management

Strategy

Our commitment to stewardship and responsible investment is central to RLAM's climate change strategy. The climate is changing and companies must prepare for the transition to a more sustainable economy. Extreme weather impacts, along with policy and infrastructure changes, are already starting to disrupt financial markets and 'business as usual'. We focus our stewardship efforts on encouraging business transformation that supports the goals of the Paris Agreement and a net zero emissions future, while building resilience to the physical risks of climate change. We support this through advocacy work with industry peers, policymakers and other stakeholders.

Our Climate Transition Plan

As part of Royal London, our climate transition plans are embedded in the Group's plans. During 2024, we contributed to the development of the Group's Climate Transition Plan (see [page 15](#) for detail). Published in June 2025, this plan details key focus areas to progress delivery towards RLAM's climate commitments.

We aim to support the Paris Agreement through our actions. This includes supporting the decarbonisation of our investee companies through engagement, instead of decarbonising our portfolio regardless of the real economy. Where our segregated clients have made explicit public commitments towards net zero, we will also work closely with them towards this goal.

Our climate commitments are based on the expectation that governments and policymakers will deliver on commitments to achieve the goals of the Paris Agreement. It also assumes this action does not contravene RLAM's legal duty to our investors. We will work with others to pursue real-world emission reductions.

Our approach to managing RLAM's climate transition on behalf of our clients covers:



Engagement

As an active asset manager with a long-term view, we are fulfilling our clients' expectations to engage on their behalf on the issues that matter to them. We regularly engage with the companies in which we invest on ESG issues, which can have a positive effect on corporate behaviour over time. We expect to improve corporate practices and foster long-term, mutually beneficial relationships. Read more about our engagement activity on [page 16](#).

Research

'Off-the-shelf' ESG information from third-party providers rarely provides the nuance or context needed to add value to our investment process. Alongside our investment teams, our in-house Responsible Investment team directs its climate expertise through thematic research, company assessments, and reporting and analysis tools to support investment decision making and net zero stewardship.

Voting

Exercising voting rights on behalf of our clients is a core part of RLAM's commitment to be a trusted steward of clients' assets. Voting on thousands of resolutions worldwide is an extension of our work to promote good governance and proactive, thoughtful stewardship. Our voting is pragmatic, reflecting best practice, evolving insights, and in the long-term interests of our clients. Read more about our voting activity on [page 13](#).

Advocacy

We collaborate with regulators, governments, standard setters and non-governmental organisations to advance responsible investment and good governance. Through consultations, surveys and policy discussions, we contribute our expertise and advice to support meaningful regulatory or industry change. Read more about our policy and advocacy work on [page 17](#).

Supporting clients

We have a role to play in helping clients meet their net zero targets. RLAM's ambition is to expand our range of choices for clients across asset classes, including funds that help reduce carbon exposure or meet net zero goals. Read more about how Royal London is developing climate-aware investment solutions on [page 20](#).

For more information about RLAM's engagement, research, voting and advocacy activity, refer to our [Stewardship and Responsible Investment Report](#).

Governance

Board oversight and committee structure

RLAM is Royal London's Asset Management business, formed of Royal London Asset Management Holdings Limited and its subsidiaries, which include RLAM Limited and RLUTM. It also includes RLUM, which while a subsidiary of Royal London (UK) Holdings Limited, is overseen by RLAM¹. Royal London Asset Management Holdings Limited and Royal London (UK) Holdings Limited are, in turn, wholly owned subsidiaries of RLMIS – see [page 4](#) for a diagram of Royal London's organisational structure.

We recognise that climate change can present a strategic opportunity for our clients and their businesses. Within RLAM, climate-related issues are, therefore, considered as part of the decision making process of the RLAM Limited Board's and Executive Committee's decision making processes.

The RLAM Limited Board is responsible for promoting the long-term sustainable success of RLAM Limited while taking account of the interests of our stakeholders and impact on the environment. The Board has ultimate responsibility for setting risk appetite.

Within RLAM, day-to-day management is delegated to the Chief Executive Officer. Our Chief Executive Officer is supported by the Executive Committee, which is responsible for overseeing progress on RLAM's climate commitments. The Executive Committee set strategic priorities for the business, one of which is responsible investment, including climate and net zero.

The RLAM Limited Board and the Risk and Capital Committee of Royal London Asset Management Holdings Limited directly engage with and consider climate-related activities. An overview of RLAM Limited's Board and committee structure, as well as climate governance and responsibilities within the business, is provided in Figure 11 (on [page 57](#)) and Table 15 (on [page 58](#)). During 2024, consideration of climate-related activities by the RLAM Limited Board and committees included:

- approval of the RLAM Stewardship and Responsible Investment Report 2023
- consideration of climate change scenarios in respect of RLAM's Internal Capital Adequacy and Risk Assessment 2023
- quarterly updates on climate and ESG strategic risk
- quarterly updates on regulatory changes and developments
- a deep dive on RLAM's approach to stewardship and responsible investment including climate change.

The RLAM Limited Board and Executive Committee members also undertook training on responsible investment and climate in 2024.

1. In 2023, it was agreed that, from April 2024 – although not a direct subsidiary of Royal London Asset Management Holdings Limited – oversight of the RLUM business would also move to RLAM.

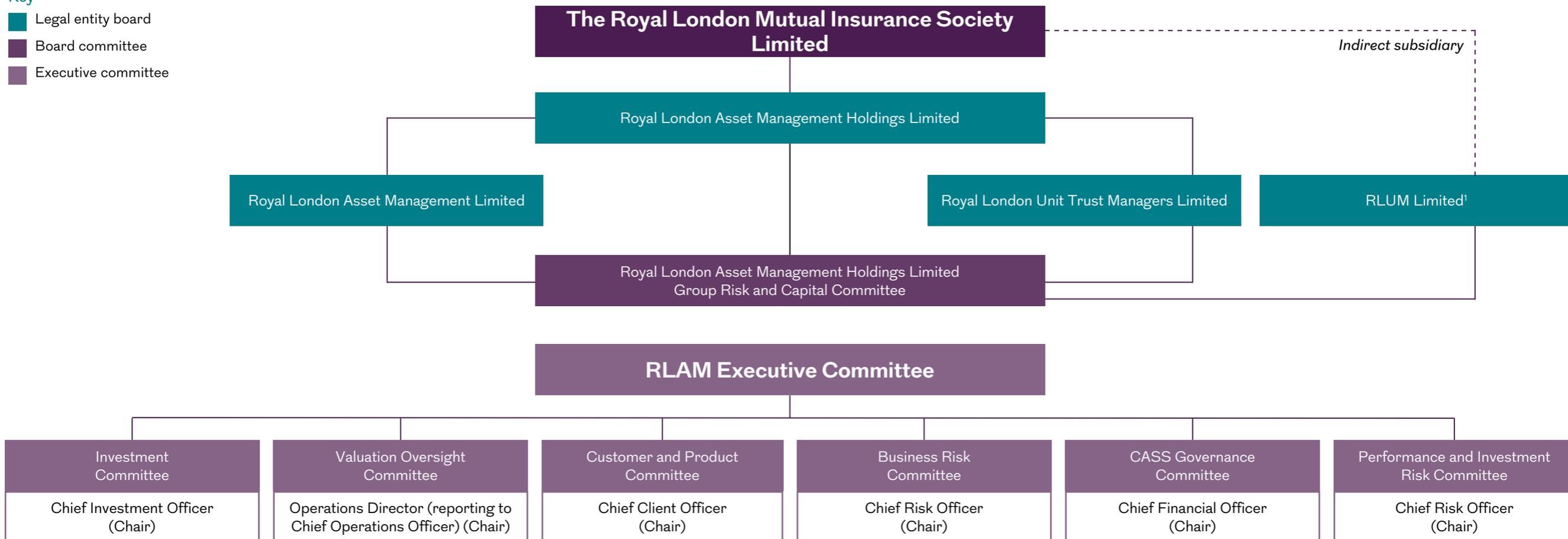


Governance *continued*

Figure 11: Royal London Asset Management Board and committee structure

Key

- Legal entity board
- Board committee
- Executive committee



1. From April 2024, the oversight of RLUM Limited moved to RLAM.

Governance *continued*

Remuneration

Royal London's incentive framework covers RLAM and aligns outcomes to delivery of key strategic objectives. For further details, see [page 27](#).

Climate training

RLAM's investment teams receive a mix of practical on-the-job and formal ESG training. Practical training for fund managers and analysts on climate-related issues is provided through ongoing engagement between our investment teams and ESG specialists. Interested colleagues can also attend lunch-and-learn sessions.

In 2024, RLAM developed and delivered responsible investment and sustainability training for RLAM colleagues, including client-facing colleagues, investment professionals and Board and Executive Committee members. We also supported over 50 colleagues across our client-facing, investment and operations teams with training for the Chartered Financial Analyst Institute Certificate in ESG Investing.

Table 15: RLAM climate governance and responsibilities

Role	Climate-related responsibility
RLAM Limited Board	Responsible for agreeing RLAM Limited's approach to climate risk.
Executive Committee	Supports the RLAM Chief Executive Officer in overseeing climate change risks and opportunities across RLAM.
Risk and Capital Committee	Undertakes capital and risk oversight on behalf of all Boards in RLAM, as shown in Figure 11.
Investment Committee	Responsible for monitoring, oversight and advice to the Chief Investment Officer on investment matters as they relate to responsible investment and climate change. The Investment Committee is chaired by the Chief Investment Officer.
Chief Investment Officer	Responsible for the investment functions, including Responsible Investment. This senior management function is part of the Executive Committee.
Heads of Asset Class and all investment managers	Responsible for ensuring material ESG risks, including climate risks, are considered within investment decisions and for contributing to engagement and proxy-voting decisions, where applicable.
Head of Responsible Investment and the Responsible Investment team	Provide subject-matter expertise, support, information, data and analytics to the investment teams, and oversee day-to-day implementation of engagement and proxy voting activities across all asset classes.
Head of Climate Transition	Advises on the strategic, commercial and investment impact of climate risk across the business in collaboration with the teams in Investment, Client Group, Operations and Risk.



Risk management

To manage and mitigate RLAM's exposure to financial, strategy, reputation, regulatory and commercial risks arising from climate change, we embed climate risk into our risk management system, monitor key metrics and, as of June 2025, have published our progress towards an RLAM Climate Transition Plan (CTP) and CTP Journey. We aim to provide a balanced approach that supports a transition towards a lower carbon investment portfolio where client objectives prefer this, while still generating appropriate investment returns.

With support from the RLAM Risk function, management is accountable for identifying, measuring, reporting, managing and mitigating risks relevant to its area of business. This includes the design and operation of suitable internal controls and the allocation of risk and control responsibilities. This approach helps drive consistency in climate risk management activities across our business, supporting the integration of climate-related issues into day-to-day and strategic planning activities.

Our risk management framework

The Group risk management framework is used to manage exposure to known or expected risks, and help ensure that business performance is not undermined by unexpected events – find further details on [page 30](#). This provides assurance that the climate risks to which RLAM may be exposed are being appropriately identified and managed within our risk appetite.

Identification, assessment and management of climate risks

Emerging and strategic risk assessments

As part of RLAM's risk identification and management processes, emerging and strategic risks are regularly reviewed by our Business Risk Committee, with

significant matters reported to the RLAM Holdings Limited Risk and Capital Committee. These reviews identify emerging and strategic risks that could impact RLAM's ability to carry out our business, execute our strategy and service clients. Risks are assessed on potential impact, probability, the timeframe to occur, and whether their likelihood is increasing or decreasing.

We monitor risks associated with meeting client requirements on ESG and net zero commitments, as well as with evolving and increasing regulation surrounding ESG and net zero. We are also working on approaches to mitigate these risks, most notably through a project that aims to evolve our strategy and improve our processes for climate risk oversight.

We use two key metrics to monitor climate risks: measurement of portfolio emissions against a linear decarbonisation curve, and our level of engagement with the firms we invest in. Each metric is monitored by an assigned owner in RLAM and is reported on as part of strategic and emerging risk reporting to the RLAM Business Risk Committee and to the Group.

Climate-related risks are captured as part of RLAM's Internal Capital Adequacy and Risk Assessment (ICARA). The ICARA is used to determine the potential impact of material harm to clients, to RLAM and the markets in which we operate due to our ongoing business activities. The impacts of climate change transition risk and responsible investment are examined as one of the scenarios in the ICARA stress-testing process. The scenario examines the potential impact of increasing climate-related reporting requirements and client expectations to integrate ESG and climate change into the investment decision making process. It quantifies the risk of falling behind our competitors in achieving this, and the resulting negative impact this could have on RLAM's financial position over the duration of our business plan.



Risk management *continued***Investment risk management**

Climate change might affect investment returns on assets that we manage for clients. We seek to address and mitigate climate investment risks by:

- ensuring climate risk is integrated into our risk appetite framework
- integrating material ESG risks, including climate, into our investment decision making
- being active stewards of our clients' capital, and using proxy voting (when relevant) and engagement as tools to highlight potential climate risks and influence company, tenant and regulator behaviour, as described on [page 13](#).

During 2024, we continued to evaluate climate risks material to our investments. This work will help us manage reputational and commercial risks by ensuring we pay appropriate attention to climate considerations in our investment strategy and product development, as well as ensuring that we have the right resources and operating model in place to meet client needs. We also further supported our Group-wide Climate Transition Plan (see [page 15](#)).

Property investment risk management

Due to the typical lifespan of property assets, the speed of change in portfolios and the complex technical nature of interventions, real estate requires a significantly different management response to climate risk than other assets that considers risk over long time horizons. Climate models forecast an increase in the impacts of climate-related physical risks, such as increased damages from flooding and overheating. Simultaneously, shifting to a low-carbon society will require an increase in regulations, in the absence of further technological breakthroughs. In the UK, at present, this includes the introduction of a Minimum

Energy Efficiency Standard (MEES), which requires designed energy efficiency improvements and for real estate markets to price in operational performance.

To minimise climate risk across our properties, during 2024 we:

- completed flood risk assessments across all properties, as part of our triennial portfolio review. This assessed present day and future flood risk, with additional in-depth assessment completed for assets determined to be at higher risk.
- commenced a portfolio-wide programme of climate change risk assessment, with eight pilot properties assessed. This assessed physical climate risks, including temperature, rainfall and drought, to project how these risks will evolve in the short, medium and long term under two different scenarios.
- completed 17 net zero carbon audits across our office assets. These analysed operational performance against industry-best practice benchmarks (such as the Carbon Risk Real Estate Monitor's 1.5-degree warming trajectory) and identified where interventions are necessary for us to achieve net zero carbon.

Professional clients can find further detail in [RLAM's Property Net Zero Carbon Pathway Progress Report 2023](#).

Operational risk management

Operational risk resulting from climate risk is managed in partnership with the Group through shared services, infrastructure and buildings.

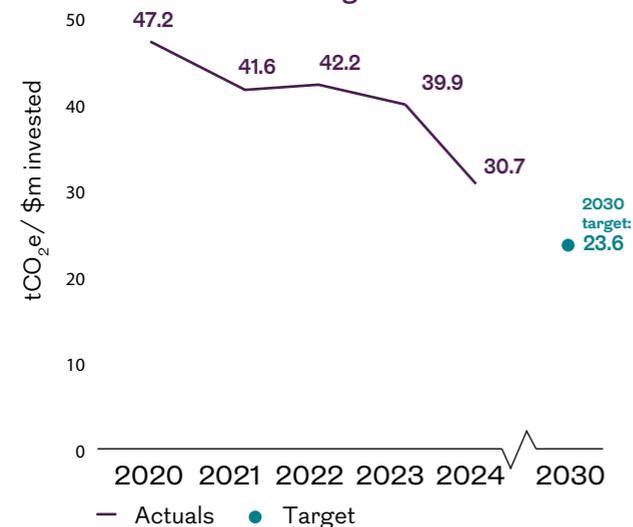


Metrics and targets¹

Central to RLAM's strategy is our climate commitment to achieve net zero by 2050 for our in-scope assets. Our decarbonisation target covers our corporate fixed income and listed equity assets, and we have a separate net zero target for our property assets. In-scope assets exclude segregated mandates managed on behalf of external clients unless the client has made an explicit commitment to net zero.

Our intention is to decarbonise RLAM's in-scope directly managed funds in line with the real economy while upholding our legal duty. This also relies on governments and policymakers delivering on their commitments to achieve the goals of the Paris Agreement and that the required actions do not contravene our legal and regulatory obligations to our clients.

Figure 12: RLAM carbon footprint and mid-term reduction target



Corporate fixed income and listed equity

We are committed to reducing the carbon footprint intensity emissions of our corporate fixed income and listed equity assets by 50% compared to our 2020 baseline, using the carbon footprint intensity metric for Scopes 1 and 2 (tCO₂e/\$m invested). We use Enterprise Value including Cash (EVIC), which assesses the total value of a company, as the attribution factor. The methodology used to calculate carbon footprint intensity can be found on [page 77](#).

RLAM's carbon footprint has decreased by 35% since 2020, and by 23% since 2023 (see [Figure 12](#)). Reductions since 2020 are mainly driven by active management of existing investments, decreases in company emissions and increases in EVIC.

Engagement with investee companies

Engagement is an integral part of our approach to drive decarbonisation at the constituent level of our funds. In 2030, we aim to engage with companies that represent 70% of our financed emissions (Scopes 1, 2 and 3) from corporate fixed income and listed equity assets.

As shown in [Figure 13](#), in 2024 RLAM engaged with 192 companies representing 60% of our financed emissions. We engaged with companies either directly or through collaborative partnerships with other investors.

Our Net Zero Stewardship Programme promotes the transformation of businesses to support a low-carbon future in alignment with the Paris Agreement. Therefore, we advocate for companies to develop credible climate transition plans and establish emissions reduction targets using science-based, sector-specific methodologies, such as those recommended by the Science-Based Targets initiative (SBTi).

Through our Net Zero Stewardship Programme, we targeted 40 of the highest-emitting companies across

our corporate fixed income and listed equity funds in 2024, accounting for 54% of our financed emissions (Scopes 1, 2 and 3).

For further details of our 2024 net zero engagements, refer to [RLAM's Stewardship and Responsible Investment Report 2024](#).

Property

We aim to achieve net zero emissions for property assets and developments directly managed by RLAM by 2030, and indirectly managed by 2040. See [page 65](#) for more detail on our property metrics.

We have made significant progress towards our Net Zero Carbon Pathway, published in 2021, by implementing a number of strategic programmes. Using net zero carbon audits, we analyse the operational and energy performance of properties to create asset-level decarbonisation plans. Since 2021 we have undertaken audits at 39 properties, primarily focusing on multi-let offices. To understand the interventions required to improve properties with an Energy Performance Certificate rating of B or above, we have completed 698 Building Upgrade Reports.

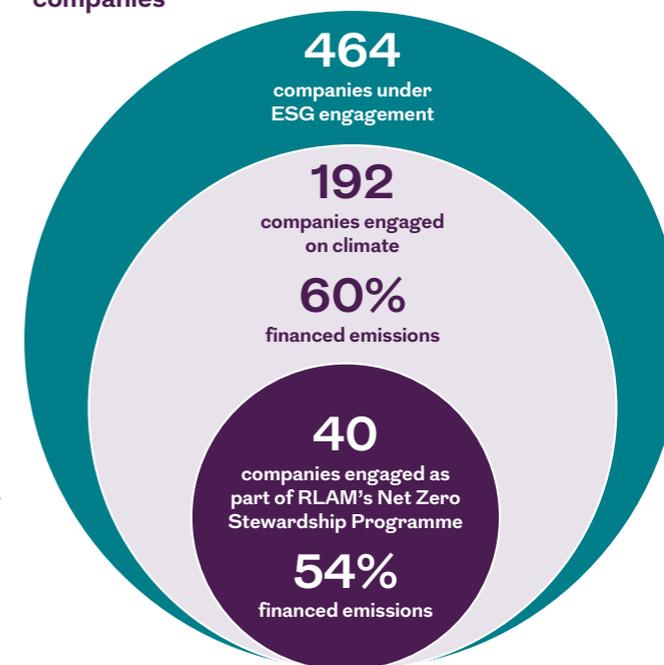
Optimising the operational energy performance of our properties is a key priority. In 2024, we achieved our first NABERS UK Energy for Offices rating for the Aurora Finzels Reach office investment property in Bristol, which rated the energy efficiency of the building as three out of six stars. This assessment provides the ability to create a clear roadmap to further improve energy performance. It also offers the opportunity to engage with our occupiers to collaboratively work towards improving the building's NABERS rating, benefiting RLAM and the occupier by reducing energy consumption and costs.

Our operational and value chain emissions

Royal London sets out its targets for operational emissions (Scope 1, 2 and 3, excluding category 15) on [page 21](#). RLAM, as part of Royal London, shares these operational emissions targets with the delivery of these targets led by the Group.

Find the disclosure of metrics and progress to date on [page 48](#).

Figure 13: 2024 engagement with investee companies



1. Data in the entity-level report is subject to rounding.

Analysis

Corporate fixed income and listed equity

We use different metrics to understand decarbonisation progress across our corporate fixed income and listed equity assets: Weighted Average Carbon Intensity (tCO₂e/\$m revenue), carbon footprint (tCO₂e/\$m invested) and financed emissions (MtCO₂e). See [page 41](#) and [Appendix II](#) for an explanation of these metrics.

As of 31 December 2024, changes in emissions associated with our corporate fixed income and listed equity assets included:

- Weighted Average Carbon Intensity (Scope 1 and 2) decreased by 3% since 2023 and 41% since 2020.
- Financed emissions (Scope 1 and 2) decreased by 16% since 2023 and 21% since 2020. Financed emissions (Scope 1, 2 and 3) also reduced by 16% since 2023 and 11% since 2020.
- Carbon footprint emissions (Scope 1 and 2) reduced by 23% since 2023 and 35% since 2020.

This illustrates progress towards our target to achieve a 50% decrease in the carbon footprint of our portfolio by 2030, from a 2020 baseline. One contributing factor to the decrease since 2023 was changes in the weight of investee companies within our portfolio. Other factors were a reduction in investee company emissions and an increase in EVIC. We use EVIC, which assesses the total value of a company, to normalise emissions across investee companies to quantify issuer-level carbon footprints.

For further details of our carbon accounting results, see [Figure 12 on page 61](#) and [Table 16 on page 64](#).

The basis and assumptions underlying our emission disclosures

Emission disclosures

Portfolio coverage for Weighted Average Carbon Intensity (Scope 1 and 2) was 88% in 2024, which is a 12% increase since 2020 but an 8% decrease since 2023.

Portfolio coverage for carbon footprint and financed emissions (Scope 1 and 2) was 87% in 2024. This is a 31% increase in coverage since 2020 and an increase of 13% since 2023.

In 2024, data for Scope 1, 2 and 3 emissions was reported by investee companies and supplied by our third-party data provider, MSCI. Where companies do not report data, values are estimated based on MSCI's methodologies.

The changes in coverage this year are a result of changes in our methodology as well as changes in MSCI's methodology. To maintain consistency across reporting, Royal London aligned the methodology for calculating emissions metrics across the Group. RLAM, therefore, began using exclusively MSCI data in 2024. This resulted in a decrease in Weighted Average Carbon Intensity coverage.

In addition, MSCI modified its approach to EVIC by adding an alternative method to capture company size. Where EVIC is not available, MSCI will look at a company's total debt and total equity rather than reporting no data. This change contributed to higher coverage for carbon footprint and financed emissions.

Drivers of change for our disclosed emissions

Our portfolio of investments

Our portfolio emissions can change due to our fund managers' activity, such as investing in new companies, divesting from others, or adjusting exposure to higher-emitting sectors within their mandates. Overall portfolio emissions may also shift based on client preferences that influence capital allocation to RLAM funds with different carbon footprints, or from clients' mandates that direct emissions reduction targets.

Investee company financials or business structure

The EVIC of companies in which RLAM invests can fluctuate due to changes in a company's market value, market capitalisation or debt issuance. As we use EVIC to normalise emissions across investee companies, our exposure to a company's emissions can vary. The revenues of investee companies are particularly volatile and can rise due to inflation or commodity cycles.

Additionally, investee companies' emissions may change if they acquire or divest polluting assets from other companies, which may or may not be part of RLAM's portfolio. However, acquisitions or divestments would not alter the total emissions of the real economy.

Investee company emissions from sustained or incremental reductions

Achieving a sustained reduction in corporate emissions through the implementation of emissions-reducing strategies can significantly contribute to the decarbonisation of the entire economy. Therefore, promoting and encouraging this transformation in a company's emissions, for example through engagement, is a key priority for RLAM.

Assets under management

The Royal London Group's assets under management (AUM) as at 31 December 2024 was £173bn, of which £168bn are assets internally managed by RLAM on behalf of clients, including our parent company RLMIS. The climate metrics reported are for the following asset classes: listed equity, corporate fixed income, sovereign bonds and property. All climate data is reported as at 31 December 2024, with the exception of RLAM's property portfolio which is reported as at 30 September 2024, in line with property reporting standards. Throughout this report, our exposure to these asset classes is compared with composites of relevant equity and fixed income benchmarks. The analysis of the carbon emissions of RLAM's AUM excludes cash, certificates of deposits, commodities, derivatives and private equity. These excluded asset classes account for 3% of our AUM collectively (shown as 'Other' in Figure 14).

Figure 14: RLAM's internally managed AUM¹



1. Rounded to the nearest 1%.

Analysis continued

Sovereign debt

Monitoring climate transition risk in RLAM's sovereign bond assets, involves evaluating sovereigns' capacity to repay debt under increased climate impacts, such as shifts in fossil fuel demand or the rise of low-carbon technologies. Assessing this risk in sovereign bonds is more complex than in corporate fixed income. However, as national emissions inventories reported to the United Nations provide high-quality data, it is easier to evaluate countries' contributions to climate change compared to corporate contributions.

At Royal London, we use three Partnership for Carbon Accounting Financials recommended metrics to assess emissions for sovereign bond funds:

- sovereign debt emissions, which include all emissions from production and imports
- sovereign debt production intensity
- sovereign debt consumption intensity.

We use the most recently available data from our data provider in our reporting. Predominantly due to a deadline amendment by the United Nations Framework Convention on Climate Change (UNFCCC) that extended when sovereigns must disclose emissions, updated data was not available for our year end 2024 report. This report, therefore, uses the same emissions data to calculate our sovereign debt metrics as our year end 2023 disclosure. Year-on-year changes in our sovereign debt metrics only reflect changes in our portfolio composition, growth and coverage, and do not reflect actual changes in sovereigns' emissions.



Analysis *continued*

Table 16: RLAM portfolio emissions disclosure

Metrics	2024 ¹	2023 ¹	2020 (baseline) ¹	Year-on-year change ²	Change against baseline ²
Corporate fixed income and listed equity					
AUM (£bn)	133	121	100	11%	33%
Scope 1 and 2					
Financed emissions (MtCO ₂ e) ³	◆ 5.1	6.1	6.5	-16%	-21%
Carbon footprint (tCO ₂ e ³ /\$m invested)	◆ 31	40	47	-23%	-35%
Data coverage (%) ⁴	◆ 87%	77%	66%	13%	31%
Weighted Average Carbon Intensity (tCO ₂ e ³ /\$m revenue)	◆ 68	70	116	-3%	-41%
Data coverage (%) ⁴	◆ 88%	96%	78%	-8%	12%
Scope 3					
Financed emissions (estimated) (MtCO ₂ e) ³	43.9	52.1	48.8	-16%	-10%
Data coverage (%)	87%	77%	66%	13%	32%
Scope 1, 2 and 3					
Financed emissions (estimated) (MtCO ₂ e) ³	49.0	58.2	55.3	-16%	-11%
Data coverage (%) ⁴	87%	77%	66%	13%	31%
Sovereign debt					
AUM (£bn)	21	20	23	4%	-7%
Financed emissions (MtCO ₂ e) ³	◆ 6.0	5.8	8.0	2%	-24%
Production emissions intensity (tCO ₂ e ³ /\$m PPP-adjusted GDP)	◆ 148	144	158	3%	-7%
Consumption emissions intensity (tCO ₂ e ³ /capita)	◆ 11	11	11	4%	5%
Data coverage (%) ⁴	◆ 99%	99%	98%	0%	2%

Independent assurance

We engaged KPMG LLP to perform independent limited assurance over selected climate metrics, marked with a ◆ symbol. Selected metrics can be found in Table 16.

The assurance engagement was performed in accordance with the International Standard on Assurance Engagements (UK) 3000 and the International Standard on Assurance Engagements 3410. You can read the independent assurance statement in full, available at www.rlam.com.

1. Data for year ended 2024, 2023 and 2020, respectively.
2. Year-on-year change represents the percentage change in the year ended 2024 metric from the year ended 2023 metric. Change from baseline represents the percentage change in the year ended 2024 metric from our baseline year, the year ended 2020 metric. Percentage changes are derived from the underlying unrounded data and so may not match the calculation based on the rounded figures in the table.
3. tCO₂e represents the estimated amount of emissions, measured in metric tonnes of carbon dioxide equivalent. MtCO₂e represents one million metric tonnes of carbon dioxide equivalent.
4. Proportion of assets with complete data. Complete data is defined as the available issuer-level data for all data points required for calculating a metric. For all metrics, this includes data on investment value and issuer emissions. Find more information on pages 84 to 86. Beyond this, corporate fixed income and listed equity carbon footprint and financed emissions metrics also require data on issuer EVIC; Weighted Average Carbon Intensity requires issuer revenue; sovereign debt financed emissions and production intensity metrics require data on Purchasing Power Parity adjusted Gross Domestic Product; and sovereign debt consumption intensity requires capita data. Data coverage – the majority of data for Scope 1, 2 and 3 in 2024 is reported by the companies in which RLAM invests, supplied by our third-party data provider, MSCI. The remaining emissions data is estimated by MSCI or unavailable. Estimated data for Scope 1, 2 and 3 is provided by MSCI.

Analysis continued

Property

In 2024, emissions from RLAM's property investments increased by 69% compared to 2023. This increase can be partly attributed to methodological updates in 2024 to our Scope 1, 2 (landlord emissions) and 3 (tenant emissions) emissions calculations, including changes to our benchmarking and estimation calculations.

A significant driver behind our overall emissions uplift in 2024 was an increase in our Scope 3 emissions, which rose by 73%. This is largely attributed to embodied carbon emissions from development projects, which fluctuate year-on-year depending on our activity. In 2024, we completed six developments, five new build and one major refurbishment project, compared to one development project in 2023. To ensure we are minimising our environmental impact where possible, we aim to adhere to best practice sector-specific embodied carbon limits across all new builds and major refurbishments, as outlined in our New Construction and Major Refurbishment Sustainability Standards.

We have continued to focus on improving the Energy Performance Certificate (EPC) profile of our property portfolio to minimise our transitional risk against the MEES regulation, which requires an EPC rating of E or above and may uplift to B or above from 2030. During 2024, we increased the number of our units with an EPC A+ to B rating by 311, while decreasing the number of units with an EPC F and G rating by three. As of December 2024, we have undertaken more than 690 EPC Building Upgrade Reports, which identify interventions we can implement to increase a unit's EPC rating to B or above.

For details of the methodology used to calculate our property metrics, refer to [page 70](#) and [Appendix II](#).

Table 17: RLAM property portfolio emissions disclosure¹

	Royal London Pension Property Fund (RLPPF)			Royal London UK Real Estate Fund (RLUKREF)			Royal London Property Fund (RLPF)			Elli Healthcare Properties Limited			Total		
	2024 ²	2023 ³	Year-on-year change	2024 ²	2023 ³	Year-on-year change	2024 ²	2023 ³	Year-on-year change	2024 ²	2023 ³	Year-on-year change	2024 ²	2023 ³	Year-on-year change
AUM (£m) ⁴	4,822	4,646	4%	2,654	2,917	-9%	346	344	0%	246	191	29%	8,068	8,098	0%
Absolute (MWh)															
Total electricity ⁵	163,686	160,160	2%	71,628	73,020	-2%	22,324	11,189	100%	13,316	1,073	1141%	270,953	245,442	10%
Total fuel ⁵	74,470	74,316	0%	69,491	29,011	140%	3,884	2,735	42%	1,147	712	61%	148,993	106,773	40%
Energy intensity (kWh/m²)															
Total like-for-like building energy intensity by floor area	114	137	-16%	228	144	58%	50	102	-51%	243	46	429%	128	135	-5%
GHG emissions (tCO₂e)															
Scope 1 ⁵	2,432	2,557	-5%	1,078	768	40%	219	84	162%	-	-	-	3,729	3,409	9%
Scope 2 (location-based) ⁵	3,853	3,731	3%	1,697	1,083	57%	277	261	6%	-	-	-	5,827	5,075	15%
Scope 3 ⁵	104,077	68,029	53%	85,591	26,335	225%	6,146	3,905	57%	4,752	17,373	-73%	200,565	115,642	73%
Total GHG emissions	110,362	74,317	49%	88,367	28,186	214%	6,641	4,250	56%	4,752	17,373	-73%	210,122	124,125	69%
GHG intensity (kgCO₂e/m²)															
Total GHG emissions by floor area	52	43	20%	123	40	207%	13	31	-59%	80	446	-82%	62	48	28%

1. Data subject to rounding conventions.

2. Investment property reporting period for 2024 data is Q4 2023 - Q3 2024.

3. Investment property reporting period for 2023 data is Q4 2022 - Q3 2023.

4. AUM data as at 30 September 2024 and 30 September 2023.

5. We engaged Jones Lang LaSalle to perform independent limited assurance over RLAM's Scope 1, 2 and 3 property investment emissions. The assurance engagement was performed in accordance with AA1000AS v3 - Type 2, Moderate Assurance.

Analysis *continued*

Forward-looking and portfolio alignment climate metrics

To better understand the progress of issuers and companies on their net zero journey, we use the following forward-looking metrics:

- Implied Temperature Rise (ITR)
- SBTi alignment
- Climate Value-at-Risk (C-VaR).

See [Appendix II](#) for the methodologies, limitations and assumptions behind these metrics.

In addition, we track the alignment of companies in our portfolio using the Net Zero Investment Framework as part of our Net Zero Stewardship Programme. Our Responsible Investment Climate Transition Assessment evaluates the credible climate transition plans of our highest emitters.

Implied Temperature Rise

We use ITR to track how well our investments align with the goal of limiting global temperature rise to well below 2°C and limiting the temperature increase even further to 1.5°C, expressed as a percentage of our investment portfolio (see [Table 18](#)).

ITR offers a view of our investee companies' journeys towards net zero when used alongside other metrics, although we recognise the methodological limitations of ITR models. Use of ITR is recommended or expected by some of our clients.

We use third-party data from MSCI to calculate this metric. In 2024, MSCI enhanced its ITR methodology. The updated model now targets net zero by 2050, aligning with sector-specific pathways to limit warming to 1.5°C. It includes a credibility assessment of corporate decarbonisation targets and adjusts carbon budgets based on market share. These changes enhance accuracy and transparency, providing investors with a more reliable tool for assessing climate progress.

The changes have likely played a significant role in the 2024 values shown in [Table 18](#). However, due to the numerous variables involved – including methodological updates and active management changes in companies' targets – it is challenging to pinpoint the exact drivers of these changes in 2024 compared to 2023.

Our 2024 data showed a downward trend for ITR compared to 2023. Using the updated MSCI methodology, 19% of our funds' values had an ITR below 1.5°C and 44% had an ITR below 2°C. This represents a significant year-on-year decrease of 51% and 30%, respectively, although as mentioned above, the methodology used in 2024 is not comparable with 2023.

Science Based Targets initiative alignment

SBTi target metrics are considered alongside portfolio alignment metrics for a comprehensive view of the trajectory of our investee companies. However, we recognise that science-based sector-specific alignment

methodologies, such as that adopted by SBTi, have limitations (see [page 87](#)). RLAM does not believe that it is essential for all companies to set a target that is specifically labelled as SBTi-approved.

We track the proportion of companies with SBTi-approved 1.5°C and 2°C targets (see [Table 19](#)). The % portfolio value covered by 1.5°C targets remained the same at 24%, while there was a decrease in the % portfolio value for companies with near-term 2°C SBTi targets and companies committed to near-term targets.

This may be partly explained by SBTi starting to exclude companies from its data set that pledged to set targets but have not progressed by submitting targets for verification within 24 months of the initial pledge. In 2024, SBTi updated the status of more than 200 companies to 'commitment removed'. Adjustments in RLAM's investments may also account for the year-on-year variation.

For details of the methodology used to track SBTi alignment, see [page 77](#).

Climate Value-at-Risk

C-VaR provides insight into potential risks and opportunities related to climate change and their potential impact. We calculate C-VaR across various scenarios using integrated assessment models. For details of the methodology, see [page 77](#).

Table 18: RLAM ITR¹

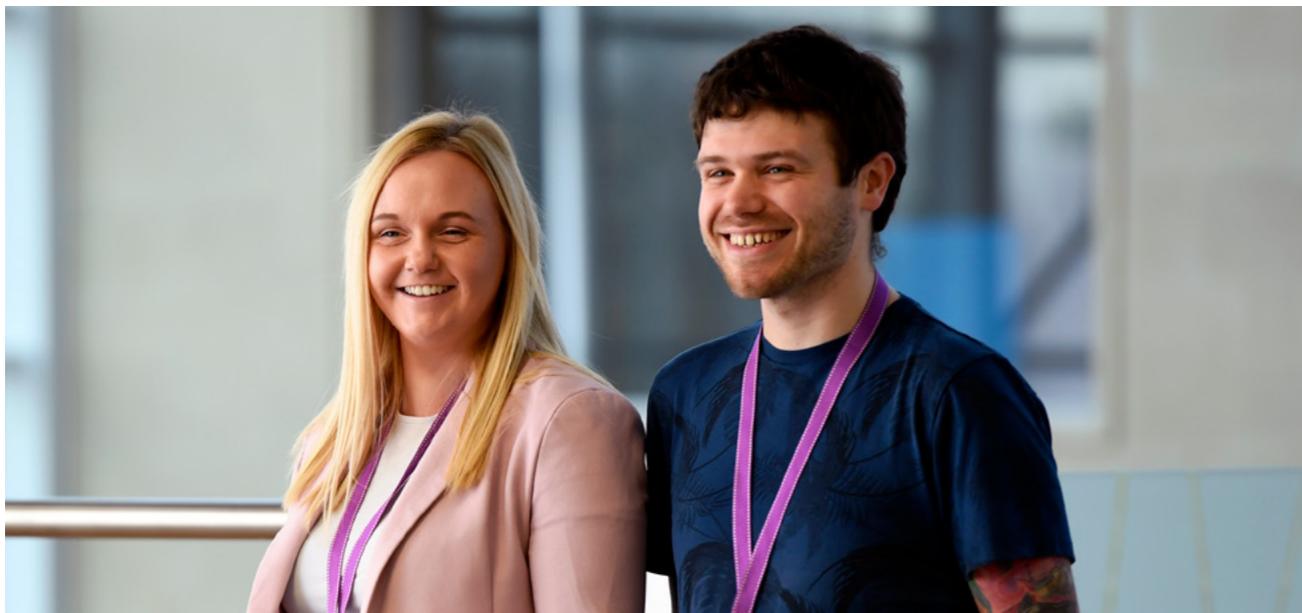
Metric		2024	2023	Year-on-year change
ITR below 1.5°C	% value in portfolio	19%	39%	-51%
ITR below 2°C	% value in portfolio	44%	62%	-30%

Table 19: RLAM SBTi alignment²

Metric		2024	2023	Year-on-year change
Companies with near-term 1.5°C SBTi targets (% value of portfolio)		24%	24%	0%
Companies with near-term 2°C SBTi targets (% value of portfolio)		2%	4%	-50%
Companies committed to near-term targets		8%	11%	-31%
Total near-term targets data coverage		34%	38%	-10%

1. Source: MSCI as at 31 December 2024. Portfolio refers to corporate fixed income and equity. Rounded to the nearest 1%.
2. Source: SBTi database 'by company'. Portfolio refers to corporate fixed income and equity. Data coverage refers to the percentage value of the portfolio where data is available. Rounded to the nearest 1%.

RLUM Limited: Entity-level report



RLUM Limited (RLUM) is an FCA-regulated unit trust manager. A wholly owned indirect subsidiary of RLMIS, RLUM has appointed its affiliated company RLAM Limited to manage its funds in line with an investment management agreement between RLUM and RLAM Limited (see page 4 for an overview of the Royal London Group). It is overseen by the RLUM Limited Board, with its climate disclosures subject to internal governance in conjunction with RLMIS and RLAM.

Compliance statement

The disclosures for RLUM, including any Group disclosures cross-referenced, comply with the requirements under the FCA's ESG sourcebook regulation (ESG 1A and ESG 2). No third-party climate disclosure reports are referenced in this report. We use data supplied by third-party providers and the nature of this means that, while we take reasonable efforts to evaluate data, there are limits to our ability to oversee the validity and accuracy of the data used.

Hans Georgeson

Chief Executive Officer, RLUM

Governance, strategy and risk management

Under the oversight of the RLUM Board, RLAM carries out governance, strategy and risk activities on behalf of RLUM (see page 56 for an overview of RLAM). For details of these activities, refer to RLAM Limited's entity-level report on page 54, which provides full disclosure of activities that cover RLUM.

RLUM does not have any direct employees or premises, with all activity carried out by Royal London colleagues in Royal London Group premises. As such, RLUM's operations form part of Royal London's operations, and any metrics and targets from a Group operational perspective include RLUM activity.

RLUM climate metrics

We disclose a selected number of metrics across the RLUM portfolio, shown in Table 20. This table details the total emissions from all RLUM fund holdings.

Table 20: RLUM corporate listed equity and fixed income metrics¹

Metric	Units	2024	2023	Year-on-year change
Scope 1 and 2 emissions				
Weighted Average Carbon Intensity	tCO ₂ e/\$m revenue	54	49	11%
Data coverage	%	93%		
Financed emissions	MtCO ₂ e ²	0.3	0.4	-28%
Carbon footprint	tCO ₂ e/\$m invested	17	21	-22%
Data coverage	%	94%	-	-
Scope 3 emissions				
Financed emissions	MtCO ₂ e	2.6	3.1	-16%
Data coverage	%	94%	-	-
Scope 1, 2 and 3 emissions				
Financed emissions	MtCO ₂ e	2.9	3.4	-16%
Data coverage	%	94%	-	-

1. Source: MSCI. As at 31 December 2024 and 31 December 2023. Data subject to rounding conventions.

2. Million tonnes of CO₂ equivalent.

TCFD disclosures for RLUM funds

These are available on the RLAM Fund Centre website located [here](#).

Royal London Unit Trust Managers Limited: Entity-level report



Royal London Unit Trust Managers Limited (RLUTM) is an FCA-regulated fund management company. A wholly owned indirect subsidiary of RLMIS, RLUTM has appointed its affiliated company RLAM Limited to manage its funds in line with an investment management agreement between RLUTM and RLAM Limited (see page 4 for an overview of the Royal London Group). It is overseen by the RLUTM Board, with its climate disclosures subject to internal governance in conjunction with RLMIS and RLAM.

Compliance statement

The disclosures for RLUTM, including any Group disclosures cross-referenced, comply with the requirements under the FCA's ESG sourcebook regulation (ESG 1A and ESG 2). No third-party climate disclosure reports are referenced in this report. We use data supplied by third-party providers and the nature of this means that, while we take reasonable efforts to evaluate data, there are limits to our ability to oversee the validity and accuracy of the data used.

Hans Georgeson

Chief Executive Officer,
Royal London Unit Trust Managers

Governance, strategy, and risk management

Under the oversight of the RLUTM Board, RLAM carries out governance, strategy and risk activities on behalf of RLUTM (see page 56 for an overview of RLAM). For details of these activities, refer to the RLAM Limited entity-level report on page 54, which provides full disclosure of activities that cover RLUTM.

RLUTM does not have any direct employees or premises, with all activity carried out by Royal London colleagues in Royal London Group premises. As such, RLUTM's operations form part of Royal London's operations, and any metrics and targets from a Group operational perspective include RLUTM activity.

RLUTM climate metrics

We disclose a selected number of metrics across the RLUTM portfolio, as shown in Table 21. This table details the total emissions from all RLUTM non-property fund holdings. Refer to page 70 and Appendix II for the property metrics methodology.

Table 21: RLUTM corporate listed equity and fixed income metrics¹

Metric	Units	2024	2023	Year-on-year change
Scope 1 and 2 emissions				
Weighted Average Carbon Intensity	tCO ₂ e/\$m revenue	70	75	-7%
Data coverage	%	93%	-	-
Financed emissions	MtCO ₂ e ²	2.6	3.0	-12%
Carbon footprint	tCO ₂ e/\$m invested	33	43	-24%
Data coverage	%	92%	-	-
Scope 3 emissions				
Financed emissions	MtCO ₂ e	24.2	25.5	-5%
Data coverage	%	92%	-	-
Scope 1, 2 and 3 emissions				
Financed emissions	MtCO ₂ e	26.9	28.6	-6%
Data coverage	%	92%	-	-

1. Source: MSCI. As at 31 December 2024 and 31 December 2023. Data subject to rounding conventions.

2. Million tonnes of CO₂ equivalent.

TCFD disclosures for RLUTM funds

These are available on the RLAM Fund Centre website located [here](#).

Royal London Unit Trust Managers Limited Report *continued*

Energy and GHG emissions for RLUTM property funds

For RLUTM real estate funds, the impacts of climate change, the metrics used to measure climate change, and the management response required differ significantly from all other asset classes. These are, therefore, disclosed separately in Table 22.

Table 22: RLUTM property metrics¹

	Royal London UK Real Estate Fund (RLUKREF)			Royal London Property Fund (RLPF)			Total		
	2024 ²	2023 ³	Year-on-year change	2024 ²	2023 ³	Year-on-year change	2024 ²	2023 ³	Year-on-year change
AUM (£m) ⁴	2,654	2,917	-9%	346	344	0%	2,999	3,262	-8%
Absolute (kWh)									
Total electricity	71,627,763	73,019,986	-2%	22,323,561	11,188,966	100%	93,951,324	84,208,952	12%
Total fuel	69,491,422	29,010,555	140%	3,884,159	2,734,708	42%	73,375,581	31,745,263	131%
Energy intensity (kWh/m²)									
Total like-for-like building energy intensity by floor area	228	144	58%	50	102	-51%	147	137	7%
GHG emissions (tCO₂e)									
Scope 1	1,078	768	40%	219	84	162%	1,297	852	52%
Scope 2 (location-based)	1,697	1,083	57%	277	261	6%	1,974	1,344	47%
Scope 3	85,591	26,335	225%	6,146	3,905	57%	91,737	30,240	203%
Total GHG emissions	88,367	28,186	214%	6,641	4,250	56%	95,008	32,436	193%
GHG intensity (kgCO₂e/m²)									
Total GHG emissions intensity by floor area	123	40	207%	13	31	-59%	77	38	102%

1. Source: RLAM, as at 30 September 2024. Data subject to rounding conventions.

2. Investment property reporting period for 2024 data is Q4 2023 – Q3 2024.

3. Investment property reporting period for 2023 data is Q4 2022 – Q3 2023.

4. AUM data as at 30 September 2024 and 30 September 2023.



TCFD disclosures for RLUTM funds

Non-property funds are available on the RLAM Fund Centre website located [here](#) and property funds disclosure for institutional investors is available [here](#).

Property metrics: methodology notes

1. Due to the nature of carbon, energy and water data for property, the data presented in this section is taken from 1 October 2022 (Q4) to 30 September 2023 (Q3), and 1 October 2023 (Q4) to 30 September 2024 (Q3). The need to report Q4 to Q3 data is common within the property management industry and is driven by delays in data availability.
2. For the property reporting period of Q4 2023 – Q3 2024, there have been some methodological changes to the Scope 1, 2 and 3 emissions calculations. This includes benchmarking and estimations. Therefore, the last two years may not be directly comparable.
3. Scope 1 is inclusive of emissions from landlord-procured gas (excluding occupier spaces) and fugitive emissions from refrigerants. Scope 2 is inclusive of emissions from landlord-procured electricity (excluding occupier spaces). Scope 3 is inclusive of:
 - purchased goods and services
 - capital goods (including development activities)
 - energy transmission and distribution
 - landlord-procured water emissions
 - landlord-managed waste emissions
 - end-of-life treatment of sold products
 - indirect investments
 - emissions from energy consumption in occupier spaces.
4. Please see RLAM's Property Net Zero Carbon Pathway Progress Report (2024) for a full breakdown of Scope 1, 2 and 3 emissions by GHG source. Like-for-like intensity metrics are calculated only where whole building coverage is available to align with the INREV reporting guidelines. It relates only to internal (gross internal area (GIA)) utilities. Assets sold or purchased during the reporting period and assets with incomplete data sets have been excluded from like-for-like analysis.
5. Energy intensity calculations are inclusive of data from assets which have whole building data and full coverage across the reporting period.
6. Where data has not been available, GHG emissions calculations have utilised benchmarks and averages. Therefore, total emissions and intensities cover the GIA of each fund.
7. See [Appendix II](#) for methodological and data assumptions, limitations and disclaimers.



Appendix II: Glossary and methodology

In this section, we discuss:

- the key terms used throughout this document
- our methodology for climate scenario analysis and calculation of our metrics
- key methodological and data assumptions, limitations and disclaimers.

Glossary

Term	Definition
Asset manager	An investment firm that provides portfolio management services to investors, including an Alternative Investment Fund Manager and the operators of an Undertaking for Collective Investment in Transferable Securities.
Asset owner	An undertaking carrying out activities of life assurance within the meaning of points a), b) and c) of Article 2(3) of Directive 2009/138/EC of the European Parliament and of the Council, and of reinsurance as defined in point (7) of Article 13 of that Directive, provided that those activities cover life-insurance obligations, and which is not excluded pursuant to that Directive.
Association of British Insurers (ABI)	The ABI represents the collective interests of the UK's insurance industry.
Biodiversity	Biodiversity is a foundational characteristic of natural systems, and it is a proxy for functional, productive and resilient ecosystems that are able to provide the ecosystem services upon which life on Earth relies. (Source: IFRS)
Carbon avoidance credits	One carbon avoidance credit represents the avoided release of one tonne of carbon that would have been emitted without the efforts of the project producing the credit. These are often known as carbon reduction or avoidance credits.
Carbon dioxide equivalent emissions (CO₂e)	The release of greenhouse gases into the atmosphere using the universal unit of measurement to indicate the global warming potential (GWP) of each of the seven greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide.
Carbon neutral	Carbon neutral describes the state achieved when an entity that produces carbon emissions removes the same volume of carbon emissions from the Earth's atmosphere.
Carbon removal credits	One carbon removal credit represents the removal of one tonne of carbon that has already been emitted into the atmosphere. Carbon removal strategies include reforestation, soil carbon sequestration, and wetland restoration.
Climate Action 100+	Climate Action 100+ is the world's largest investor-led initiative focused on engaging over 160 of the largest corporate greenhouse gas emitters to reduce emissions, improve governance, and strengthen climate-related financial disclosures. (Source: Climate Action 100+)

Term	Definition
Climate Biennial Exploratory Scenario (CBES)	CBES was originally published by the Bank of England in 2021 to explore the financial risks posed by climate change for the largest banks and insurers operating in the UK.
Climate change	Long-term shifts in temperatures and weather patterns.
Climate risk	Climate risks can arise from potential impacts of climate change as well as human responses to climate change. In the context of climate change impacts, risks result from dynamic interactions between climate-related hazards with the exposure and vulnerability of the affected human or ecological system to the hazards. In the context of climate change responses, risks result from the potential for such responses not achieving the intended objective(s), or from potential trade-offs with, or negative side-effects on, other societal objectives, such as the Sustainable Development Goals (see also risk trade-off). (Source: IPCC)
Climate scenario modelling	Models and techniques employed to estimate likely impacts on our portfolio value in a range of climate scenarios over various time horizons. Climate financial modelling is underpinned by many uncertainties and subjective choices. Models commonly exclude widely accepted material climate risks (including the impacts from policymakers' decisions, impacts of market sentiment and climate tipping points) and rely on material subjective assumptions (including viability of investee net zero plans and assumed sector-level transition pathways).
Climate transition plan	A transition plan is integral to an entity's overall strategy, setting out its plan to contribute to and prepare for a rapid global transition towards a low greenhouse gas-emissions economy. (Source: Transition Plan Taskforce)
Climate transition risks	Transitioning to a lower-carbon economy may entail extensive policy, legal, technology and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organisations.
Consumption emissions	Consumption emissions reflect the demand side of sovereign debt emissions and account for consumption patterns and trade effects. This provides a broader view of a sovereign's greenhouse gas emissions and tackles the issue of carbon leakage that arises due to production shifts from countries where goods and services are consumed later. Consumption emissions = production emissions - exported emissions + imported emissions. (Source: PCAF)

Glossary *continued*

Term	Definition
Decarbonisation	Decarbonisation refers to all measures through which a business sector, or an entity – a government, an organisation – can lower greenhouse gas emissions to reduce its impact on the climate.
Embodied carbon	The embodied carbon emissions of an asset are the total greenhouse gas emissions and removals associated with materials and construction processes, throughout the whole life cycle of an asset (modules ¹ A0–A5, B1–B5, C1–C4, with A0 assumed to be zero for buildings). (Source: RICS)
Energy Performance Certificate (EPC) Rating	Energy Performance Certificates are a rating scheme to summarise the energy efficiency of buildings in the European Union (including in the UK post-Brexit). The building is given a rating between A (very efficient) and G (inefficient).
Engagement	Engagement refers to structured, purposeful dialogue between investors and companies, policymakers, standard setters and other stakeholders with the intention of influencing (or identifying the need to influence) positive change and/or improving disclosure. Engagement can take two forms: engagement for information, which describes engagements which seek to uncover information or identify the need to change or influence; and engagement for change, which describes engagements that seek to influence change, with defined objectives and demonstrable outcomes.
Enterprise value including cash (EVIC)	EVIC is the sum, at fiscal year end, of the market capitalisation of ordinary shares, the market capitalisation of preferred shares and the book value of total debt and non-controlling interests, without the deduction of cash or cash equivalents. (Source: FCA Handbook)
Environmental, social and governance (ESG) risks (integration)	ESG integration is the systematic, explicit and transparent integration of material environmental, social and governance (ESG) considerations into processes for investment research, analysis and decision making. For funds, ESG integration refers to the consideration of ESG risks as part of the investment process. It does not mean the fund is trying to achieve a particular positive ESG outcome.
Financed emissions	The absolute emissions associated with the investments in a portfolio, expressed in tCO ₂ e (metric tonnes of carbon dioxide equivalent).

1. Material extraction (A1), transport to manufacturer (A2), manufacturing (A3), transport to site (A4), construction (A5), use phase (B1, for example concrete carbonation but excluding operational carbon), maintenance (B2), repair (B3), replacement (B4), refurbishment (B5), deconstruction (C1), transport to end-of-life facilities (C2), processing (C3) and disposal (C4).

Term	Definition
Financial Conduct Authority (FCA)	An independent conduct of business regulator, which ensures that business is conducted in such a way that advances the interests of all users of, and participants in, the UK financial sector.
Global warming	Global warming is the long-term warming of the planet's overall temperature. While this warming trend has been ongoing for a long time, its pace has significantly increased in the last hundred years due to the burning of fossil fuels. Fossil fuels include coal, oil and natural gas, and burning them causes what is known as the 'greenhouse effect' in the Earth's atmosphere.
Greenhouse Gas (GHG) Protocol	The GHG Protocol establishes comprehensive global standardised frameworks to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions. Building on a 20-year partnership between the World Resources Institute and the World Business Council for Sustainable Development, the GHG Protocol works with governments, industry associations, NGOs, businesses and other organisations. (Source: GHG Protocol)
Greenhouse gases (GHG)	The seven gases included in the GHG Protocol are carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃). (Source: GHG Protocol)
Institutional Investors Group on Climate Change (IIGCC)	The IIGCC is a European-focused investor membership organisation that works to bring the investor community together in making progress towards a net zero and climate resilient future. (Source: IIGCC)
Insurance Ireland	Insurance Ireland is the representative organisation for the insurance sector in Ireland. It advocates on behalf of its members with policymakers and regulators in Ireland, Europe and internationally to promote the value that its members create for individuals, the economy and society, and to help customers understand insurance products and services so that they can make informed choices.
Intergovernmental Panel on Climate Change (IPCC)	The IPCC is the United Nations' body for assessing the science related to climate change. The IPCC was created to provide policymakers with regular scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options. (Source: IPCC)

Glossary *continued*

Term	Definition
International Sustainability Standards Board (ISSB)	The ISSB is an independent, private-sector body that develops and approves International Financial Reporting Standards' Sustainability Disclosure Standards (IFRS SDS). The ISSB operates under the oversight of the IFRS Foundation. The ISSB is committed to delivering standards that are cost effective, useful and market informed.
Investment Association	The Investment Association is the trade body that represents UK investment managers.
Just adaptation	Just adaptation minimises the negative social externalities from efforts to adapt to climate change while maximising the adaptation benefits for wider society.
Just transition	An inclusive approach which helps avoid exacerbating existing injustices or creating new ones, considering the social implications of moving fairly to a low-carbon economy.
Materiality	Materiality is a concept that defines why and how certain issues or information are important for a company or a business sector.
Mutual	A company owned by its member customers rather than shareholders. A member of a mutual company can vote at its Annual General Meeting.
Nationally Determined Contributions (NDCs)	NDCs are countries' self-defined national climate pledges under the Paris Agreement, detailing what they will do to help meet the global goal to pursue 1.5°C, adapt to climate impacts and ensure sufficient finance to support these efforts. (Source: UNDP)
Nature	Nature's four realms – land, ocean, freshwater and atmosphere – include different types of ecosystem or 'biome', such as tropical forests, and rivers and streams. Ecosystems are assets that provide 'ecosystem services' on which society and business depend, such as freshwater for drinking and irrigation, and pollination of crops by bees. Together, the concepts of realms, biomes, environmental assets and ecosystem services form key building blocks for business and finance to understand nature. (Source: Taskforce for Nature-related Financial Disclosures)
Net zero	The term 'net zero' means achieving a balance between the amount of greenhouse gases emitted into the atmosphere and the amount removed from it.

Term	Definition
Net Zero Asset Managers initiative (NZAM)	NZAM 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; and to supporting investing aligned with net zero emissions by 2050 or sooner. (Source: NZAM)
Net Zero Investment Framework (NZIF)	The NZIF proposes key components of a net zero investment strategy. The Framework puts forward metrics to assess investments and measure alignment and requires investors to set clear, science-based targets at the portfolio and asset-class level. It also sets out implementation actions to effectively achieve portfolio alignment, meet targets and enable a broader transition towards net zero, through a combination of portfolio construction, engagement and policy advocacy. The NZIF is developed by four investor networks partnered under the Paris Aligned Investment Initiative. (Source: IIGCC)
Network for Greening the Financial System (NGFS)	The NGFS is a group of central banks and supervisors willing, on a voluntary basis, to exchange experiences, share best practices, contribute to the development of environment and climate risk management in the financial sector, and to mobilise mainstream finance to support the transition towards a sustainable economy. Its purpose is to define and promote best practices to be implemented within and outside of the membership of the NGFS, and to conduct or commission analytical work on green finance. (Source: NGFS)
Operational emissions	Direct Scope 1 and indirect Scope 2 operational greenhouse gas emissions.
Paris Agreement	A legally binding international treaty on climate change adopted by 196 parties at the UN Climate Change Conference (COP21) in December 2015. Its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C.
Paris Aligned Investment Initiative (PAII)	The PAII is a collaborative investor-led global forum enabling investors to align their portfolios and activities with the goals of the Paris Agreement. (Source: PAII)
Partnership for Carbon Accounting Financials (PCAF)	PCAF is a global partnership of financial institutions that work together to develop and implement a harmonised approach to assess and disclose the greenhouse gas emissions associated with their loans and investments. (Source: PCAF)

Glossary *continued*

Term	Definition
Physical risk	Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns. Physical risks may have financial implications for organisations, such as direct damage to assets and indirect impacts from supply chain disruption. Organisations' financial performance may also be affected by changes in water availability, sourcing and quality; food security; and extreme temperature changes affecting organisations' premises, operations, supply chain, transport needs and employee safety.
Pooled funds	Where assets are held on a collective basis on behalf of a number of investors and managed according to a single, defined investment objective.
Portfolio emissions	The emissions of investees represented within our asset portfolio. We share ownership and/or influence over investees through our investments (for example, equity and corporate debt instruments) and are, therefore, accountable for a portion of their total emissions.
Production emissions	Production emissions are the emissions originating from sources within a domestic territory. These emissions are reflected in the approach taken by the United Nations Framework Convention on Climate Change (UNFCCC) and are the basis of Nationally Determined Contributions.
Responsible investment	An approach that aims to deliver long-term investment returns consistent with the investment needs of our clients and customers, and does so in a way that reflects the responsibility we have as stewards of the investments Royal London holds for the benefit of our members, customers and clients, and to wider society.
Science Based Targets initiative (SBTi)	The SBTi aims to drive ambitious corporate climate action by enabling businesses and financial institutions globally to set science-based greenhouse gas emissions reductions targets. (Source: SBTi)
Segregated mandates	Where assets are invested by an appointed asset manager on instruction from an investor on a discretionary or non-discretionary basis and held separately from other clients' assets.
Stewardship	Stewardship is the responsible allocation, management and oversight of customers', members' and clients' money to create long-term value, supporting more sustainable benefits for the economy, the environment and society. 'Steward' shall be interpreted accordingly.

Term	Definition
Sustainability	Sustainability means meeting the needs of the present without compromising the ability of future generations to meet their own needs. This thereby contributes to the long-term wellbeing and prosperity of economies, environment and societies.
Sustainability Disclosure Requirements (SDR)	The Financial Conduct Authority's SDR regulatory requirements introduced a package of measures aimed at clamping down on greenwashing. This includes sustainable investment labels, disclosure requirements and restrictions on the use of sustainability-related terms in product naming and marketing.
Task Force on Climate-Related Financial Disclosures (TCFD)	The Financial Stability Board created the TCFD to improve and increase reporting of climate-related financial information to investors, lenders, insurers and other stakeholders. It is a framework to report on climate-related risks and opportunities. As of 2023, the TCFD has fulfilled its remit and disbanded.
Tilt strategy	An investment strategy that allows fund managers to deviate from an underlying index, by giving greater weight to securities according to a chosen measure (for example, ESG and climate practices).
Transition Plan Taskforce	The Transition Plan Taskforce aims to help organisations meet their climate goals and support the UK government's pledge to achieve net zero by 2050 by providing a set of good practice recommendations to help companies across the economy make high-quality, consistent and comparable transition plan disclosures.
UK business	The Group's UK business provides propositions to customers, employers and pension scheme trustees, primarily through intermediaries. Products offered include workplace and individual pensions, as well as protection products and later life offerings. From 2024, the UK business also provides a bulk purchase annuity product to pension schemes via the scheme trustees.
UK Stewardship Code 2020	The UK Stewardship Code 2020 is a voluntary set of principles that sets high standards for how investors, and those that support them, invest and manage money on behalf of UK savers and pensioners, and how this leads to sustainable benefits for the economy, the environment and society.
UK Sustainable Investment and Finance Association (UKSIF)	The UKSIF exists to bring together the UK's sustainable investment and finance community and support its members to expand, enhance and promote this key sector. (Source: UKSIF)

Glossary *continued*

Term	Definition
United Nations-supported Principles for Responsible Investing (UN PRI)	The PRI, a UN-supported network of investors, works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance issues, and to support signatories in integrating these issues into investment and ownership decisions. (Source: UN PRI)
Value chain	The value chain is the series of stages involved in producing a product or service that is sold to consumers, with each stage adding to the value of the product or service.
Value chain emissions	Royal London's non-investment-related Scope 3 value chain greenhouse gas emissions.
Voting	Using our rights as shareholders to vote at the Annual or Extraordinary General Meetings of the companies in which Royal London invests.

Metrics description and methodology

The metrics and methodology described in this section apply across the Royal London Group.

Portfolio climate metrics methodology

Metric	Description and methodology
Carbon footprint	The emissions intensity of an investment portfolio, expressed in tCO ₂ e/\$m invested. Financed emissions (explained above) is divided by the portfolio value. The resulting indicator measures absolute emissions generated for each dollar invested in the fund.
tCO ₂ e/\$m invested	For further details, see Royal London's 2024 Emissions Metrics Reporting Criteria .
Climate Value-at-Risk (C-VaR)	Our C-VaR model aims to provide an assessment on how climate change may affect the investment return in portfolios based on conditions associated with global temperature trajectories.
%	The underlying climate model we selected is the regionalised model of investment and development (REMIND). It is a global model that couples an economic growth model with a detailed energy system model and a simple climate model. It is hosted at the Potsdam Institute for Climate Impact Research (PIK). We use three scenarios developed by the NGFS: <ul style="list-style-type: none"> • National Determined Contributions: 'hot house' 3°C scenario • Below 2°C: an 'orderly transition' scenario • Delayed transition: a 2°C 'disorderly transition' scenario. Whether the transition is orderly or disorderly depends on global cooperation and adequate policies being in place, among other variables. The variables behind each scenario can be reviewed on the MSCI website .
Companies with Science Based Targets initiative (SBTi)-approved targets	Companies with SBTi-approved targets (%) is the percentage of companies in our corporate fixed income and listed equity asset classes that have had their climate targets approved by the SBTi.
%	It is the percentage of instruments (by value) held in the portfolio through equity stake or bonds that have validated science-based targets with near-term target trajectories below 1.5°C and 2°C, respectively.

Metric	Description and methodology
Exposure to fossil fuels	The percentage of instruments (by value) held in the portfolio through equity stake or bonds that have any exposure to revenues from the following fossil fuel activities: <ul style="list-style-type: none"> • Oil and gas 'any tie': companies with an industry tie (or exposure) to oil and gas, in particular reserve ownership, oil- and gas-related revenues and power generation. • Oil and gas production: companies that provide evidence of revenues from extraction and production of oil and gas. • Arctic oil and gas production: companies that provide evidence of producing Arctic oil or gas. • Shale oil and gas: companies that provide evidence of producing oil or gas using the method of hydraulic fracking. • Oil sands: companies with an industry tie to oil sands, in particular reserve ownership and production activities. • Thermal coal: companies disclosing evidence of thermal coal production. • Metallurgical coal: companies disclosing evidence of metallurgical coal production. • Coal power: companies disclosing evidence of thermal coal power generation. This does not measure the total revenues derived from these activities.
Financed emissions	The absolute emissions associated with the investments in the portfolio, expressed in tCO ₂ e/MtCO ₂ e (metric tonnes/million metric tonnes of carbon dioxide equivalent). Emissions are attributed to a portfolio based on the portion of the company's value that the portfolio holds, using EVIC for publicly listed corporates.
tCO ₂ e/MtCO ₂ e	For further details, see Royal London's 2024 Emissions Metrics Reporting Criteria . For Scope 3 emissions, RLMIS uses estimated emissions from MSCI. RLAM distinguishes between company reported data and estimated data from our data providers.

Metrics description and methodology *continued*

Metric	Description and methodology
Implied Temperature Rise (ITR) °C	ITR aims to measure the warming that the emissions from a company would drive by year 2100, if the whole economy had the same over- or under-shoot level of GHG emissions. It is based on the company's most recent Scope 1, 2 and 3 emissions, projecting these into the future and incorporating the company's targets. It is expressed in degrees Celsius. Further details of MSCI's ITR methodology can be found on their website. This year, we have provided detail on the percentage of our corporate fixed income and equity portfolio by value that has an ITR of below 1.5°C or 2°C. We believe this is a more useful metric than a portfolio-aggregated ITR figure, albeit with limitations and assumptions which are provided on pages 85 to 87 .
Property emissions intensity <i>kgCO₂e/m²</i>	Total Scope 1, 2 and 3 carbon dioxide-equivalent emissions per metre squared. Calculated using the GHG Protocol methodology and by applying the UK government's GHG Conversion Factors for Company Reporting (2023, 2024).
Sovereign debt consumption intensity <i>Consumption emissions – tCO₂e/capita</i>	Sovereign debt consumption intensity measures a portfolio's exposure to carbon-intensive economies, defined as the portfolio weighted average of sovereigns' GHG consumption intensity (consumption emissions/population for the country territory). Consumption emissions (PCAF defined Scope 1 + 2 + 3 - exported emissions) reflect the emissions attributable to consumption within the sovereign territory. Consumption emissions by capita provides a metric to compare demand-size of sovereign economies. For further details, see Royal London's 2024 Emissions Metrics Reporting Criteria .

Metric	Description and methodology
Sovereign debt emissions <i>MtCO₂e</i>	Emissions allocated to financiers on the basis of sovereign debt, proportioning sovereign emissions by Purchasing Power Parity-adjusted GDP relative to the value of our investment. Sovereign emissions scope includes emissions from sources located within the domestic territory (PCAF-defined Scope 1), emissions from energy imports (PCAF-defined Scope 2) and emissions from non-energy imports (PCAF-defined Scope 3). For further details, see Royal London's 2024 Emissions Metrics Reporting Criteria .
Sovereign debt production intensity <i>Production emissions – tCO₂e/\$m PPP-adjusted GDP</i>	Sovereign debt production intensity measures a portfolio's exposure to emissions-intensive economies, defined as the portfolio weighted average of sovereigns' GHG production intensity (production emissions/PPP-adjusted GDP). Production emissions (PCAF defined Scope 1) reflect the emissions generated within the sovereign territory. Values exclude land use, land-use change and forestry (LULUCF). Production emissions normalised by Purchasing Power Parity adjusted Gross Domestic Product (PPP-adjusted GDP) provides a metric to compare sovereign economies emissions relative to output and real economy size. For further details, see Royal London's 2024 Emissions Metrics Reporting Criteria .
Total building energy intensity by floor area <i>kWh/m²</i>	Energy (electricity + fuel) per kilowatt hour per metre squared.
Total electricity consumption <i>kWh</i>	Electricity consumption per kilowatt hour (kWh) – based on metered building consumption data.

Metrics description and methodology *continued*

Metric	Description and methodology
Total fuel consumption	Fuel consumption per kilowatt hour (kWh). Fuel refers to natural gas consumption only within building types.
<i>kWh</i>	
Weighted Average Carbon Intensity	The Weighted Average Carbon Intensity is a portfolio's exposure to carbon-intensive companies, expressed in tCO ₂ e/\$m revenue. Carbon equivalent emissions are divided by companies' revenues, then multiplied based on portfolio weights (the current value of the investment relative to the current portfolio value).
<i>tCO₂e/\$m revenue</i>	For further details, see Royal London's 2024 Emissions Metrics Reporting Criteria .

Operational and value chain emissions methodology

For further details, including estimation methodologies applied, see Royal London's [2024 Emissions Metrics Reporting Criteria](#).

Metric	Description and methodology
Scope 1 GHG emissions	Direct emissions from stationary combustion – Natural gas consumption is recorded monthly, utilising a hierarchy of data sources. Where verifiable data is not available, estimations are calculated from a range of methodologies. The relevant natural gas emission factors from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the Department for Energy Security and Net Zero (DESNZ) and the Department for Environment, Food and Rural Affairs (DEFRA), and Energy Conversion and Emission Factors, 2023, released by the Sustainable Energy Authority Ireland (SEAI), are applied to the consumption data for the whole 12-month period to calculate emissions in tonnes of carbon dioxide equivalent (tCO ₂ e).
<i>tCO₂e</i>	Direct emissions from mobile combustion – Business travel from vehicles owned or controlled by Royal London utilising petrol or diesel fall under Scope 1. Consumption data is recorded yearly, utilising vehicle mileage or fuel spend. The relevant fuel emission factors from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, and Energy Conversion and Emission Factors, 2023, released by the SEAI are applied based on vehicle size and fuel type for the whole 12-month period to calculate emissions in tCO ₂ e.
	Direct fugitive emissions – This is limited to building cooling systems at operational sites where Royal London has access and is responsible for the maintenance and management of the system. Refrigerant gas consumption for all cooling systems is obtained from maintenance surveys or via confirmation from the cooling system provider, recorded as measured weight of refrigerant in kg. The relevant global warming potential (GWP) from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and DEFRA is applied based on refrigerant gas type for the whole 12-month period to calculate emissions in tCO ₂ e.

Metrics description and methodology *continued*

Metric	Description and methodology
Scope 2 – GHG emissions	Indirect emissions from purchased electricity, location-based – Electricity consumption is recorded using a hierarchy of data sources. Where verifiable data is unavailable in line with the data source hierarchy, estimations are calculated from a range of methodologies. The relevant grid emission factors from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, and Energy Conversion and Emission Factors, 2023, released by the SEAI, are applied to the consumption data for the whole 12-month period to calculate emissions in tCO ₂ e.
tCO ₂ e	Indirect emissions from purchased electricity, market-based – Electricity consumption that can be classified as renewable is recorded using either a Renewable Energy Guarantees of Origin (REGO) certificate of supply or landlord confirmation of renewable energy supply. Energy sourced from certified renewable sources via the REGO scheme is currently classified as carbon neutral and falls under Scope 2 market-based emissions. Confirmations of renewable energy supply for facilities-managed properties are obtained and retained as evidence. Where landlord confirmation of REGO certificates has not been obtained for certain sites, Royal London have taken the approach to purchase a bulk REGO from the National Grid to certify these sites as utilising renewable energy.
	Indirect emissions from electric charging, location- and market-based – Expensed travel from electric vehicles owned or controlled by Royal London falls under Scope 2. Where the emission source of electric vehicle charging points cannot be verified, all related emissions are assigned as non-renewable. Consumption from electric vehicle charging is recorded yearly, utilising vehicle mileage and fuel spend. For the location-based calculation, the relevant grid emission factors from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, and Energy Conversion and Emission Factors, 2023, released by the SEAI, are applied to the consumption data for the whole 12-month period to calculate emissions in tCO ₂ e. For the market-based calculation, the relevant residual mix emission factors from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, and Energy Conversion and Emission Factors, 2023, released by the SEAI, are applied to the consumption data for the whole 12-month period to calculate emissions in tCO ₂ e.
	Indirect emissions from heating, location- and market-based – Emissions from heating cover multi-tenant properties where Royal London consumes heat generated from a low temperature hot water (LTHW) system that is not within operational control. Heat consumption is recorded through physical meter readings with landlord confirmation. For the location-based and market-based calculation, the relevant onsite heating emission factor from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, is applied to the consumption data for the whole 12-month period to calculate emissions in tCO ₂ e.

Metric	Description and methodology
Scope 3 – GHG (value chain) emissions	Category 8 is not applicable to Royal London as there are no upstream leased assets in the value chain. Categories 9, 10, 11, 12, 13 and 14 of Scope 3 are currently not disclosed as these categories are not material to Royal London's business. Category 15 (Investments) emissions data is reported separately.
tCO ₂ e	Category 1: Purchased goods and services and Category 2: Capital goods – Covers emissions from the extraction, production and transportation of purchased goods and services (from cradle to gate). This data represents payments made to suppliers within the reporting period. A data-cleansing exercise is completed to exclude any supplier spend that would represent double-counting in another category. Emissions are calculated utilising either specific supplier emissions from Carbon Disclosure Project (CDP) data or utilising the relevant Environmentally Extended Input-Output (EEIO) industry emission factors from the Supply Chain Greenhouse Gas Emission Factors (v1.3 2024), released by the US Environmental Protection Agency. Royal London recognises the limitations of CDP data, as different suppliers may disclose different categories and utilise different calculation methods. This hybrid method allows for more in-depth, actual data to be utilised where it is available, while implementing estimations for the remaining dataset using the spend-based method.
	Category 3: Fuel and energy related activities – Covers emissions from the extraction, refining and transportation of fuels and purchased energy prior to their use in the generation of energy as well as due to the loss of energy during transmission and distribution. Consumption data collected for Scopes 1 and 2 is utilised for the calculation of this emissions category. The relevant transmission and distribution emission factor from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, is applied to electricity and heat consumption for the whole 12-month period to calculate emissions from transmission and distribution losses in tCO ₂ e. The relevant well-to-tank emission factor from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, is applied to electricity, natural gas and other fuel consumption for the whole 12-month period to calculate well-to-tank (WTT) emissions in tCO ₂ e.

Metrics description and methodology *continued*

Metric	Description and methodology
Scope 3 – GHG (value chain) emissions <i>continued</i>	<p>Category 4: Upstream transportation and distribution – Covers emissions from the transportation and distribution of water to Royal London offices. Water consumption is collected using a hierarchy of data sources. Where verifiable data is not available, estimations are calculated from a range of methodologies. The relevant water supply emission factor from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, is applied to water consumption for the whole 12-month period to calculate emissions from transportation and distribution of water in tCO₂e.</p> <p>The relevant wastewater treatment emission factor from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and DEFRA, is applied to water consumption to calculate emissions from wastewater in tCO₂e.</p> <p>Category 5: Waste generated in operations – Covers emissions from the disposal and treatment of waste generated from Royal London offices, using several waste disposal streams. Waste tonnage data from all sites and waste streams is collected using a hierarchy of data sources. Where verifiable data is not available, estimations are calculated from a range of methodologies. The relevant waste emission factors for each disposal stream and processing type from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, are applied for the whole 12-month period to calculate emissions from waste generated in operations in tCO₂e.</p> <p>Category 6: Business travel – Covers emissions generated from rail and air business travel, hotel stays, taxi travel and use of personal cars for business purposes. Business travel data is collected via a range of methods, depending on the travel type. The relevant emission factors by travel type from the UK Government GHG Conversion Factors for Company Reporting, 2024, released by the DESNZ and the DEFRA, and Energy Conversion and Emission Factors, 2023, released by the SEAI Emission factors from the DESNZ, are applied for the whole 12-month period using the below methodologies to calculate emissions from business travel in tCO₂e.</p>
tCO ₂ e	

Metric	Description and methodology
Scope 3 – GHG (value chain) emissions <i>continued</i>	<p>Category 7: Employee Commuting and Homeworking – Covers emissions from the commuting of employees between their homes and Royal London offices, and emissions from employees working from home. Employee commuting and homeworking input data is made up of results from the Royal London colleague commuting and homeworking survey on a range of factors related to commuting and homeworking. For homeworking, the methodology in the Eco Act Homeworking Whitepaper is used for calculation, alongside several assumptions. Relevant emission factors from the UK Government GHG Conversion Factors for Company Reporting, released by the DESNZ and the DEFRA, are applied to the survey results, office occupancy and full-time equivalent data to calculate emissions from employee commuting and homeworking in tCO₂e. There are two shuttle buses between the train station and the office in Alderley Park. Shuttle bus fuel, passenger numbers and working days are used to calculate the carbon emissions in tCO₂e. Where fuel data is unavailable, this is estimated using the average litre of fuel per mile ratio of the shuttle buses.</p> <p>Category 13: Downstream leased assets – Covers emissions from the operation of assets owned by Royal London (lessor) and leased to other entities, where Royal London does not have full operational control of the property. This category is included for 2019 baseline emissions; however, all downstream leased assets have since been sold and therefore there were no emissions from this category in 2024. The relevant natural gas and electricity emission factors from the UK Government GHG Conversion Factors for Company Reporting, 2019, released by the DESNZ and the DEFRA, are applied to the consumption data for the whole 12-month period to calculate emissions in tCO₂e.</p>
tCO ₂ e	
Scope 3 – GHG (emissions intensity metrics)	<p>Total Scope 1 and 2 emissions per square metre, market-based – Consumption data collected for Scopes 1 and 2 is utilised for the calculation of this intensity metric. Please refer to the Scope 1 and Scope 2 market-based sections for information on the collection, estimation and calculation under each consumption type for how emissions are calculated in tCO₂e. Total Scope 1 and 2 market-based emissions for the year are then divided by the total metres squared of all properties under Royal London's operational control to reach the intensity metric in tCO₂e per m².</p> <p>Total Scope 3 emissions per square metre – Consumption data across all relevant Scope 3 categories is utilised for the calculation of this intensity metric. Please refer to the Scope 3 section for information on the collection, estimation and how emissions for each Scope 3 category are calculated in tCO₂e. Total Scope 3 emissions for the year are then divided by the total metres squared of all properties under Royal London's operational control to reach the intensity metric in tCO₂e per m².</p>
tCO ₂ e	

Metrics description and methodology *continued*

Our approach to attribution analysis

Our attribution analysis examines the change in our Scope 1 and 2 carbon footprint for corporate fixed income and listed equity assets over the last year, as disclosed on [page 43](#). It investigates changes in the company-level emissions and financial data used to inform our carbon footprint. For information on how our carbon footprint is calculated using this data, see Royal London's [2024 Emissions Metrics Reporting Criteria](#). Our approach aligns with a method set out by MSCI researchers in [A Framework for Attributing Changes in Portfolio Carbon Footprint](#) published in the *Journal for Portfolio Management*.

Our analysis sets out ten drivers of the change in our carbon footprint over the last year. Each driver sits within one of three layers of analysis, which are categorised according to the depth of detail they provide. The results of our analysis are shown on [page 83](#).

The first layer of detail includes four drivers that influence the overall change in our carbon footprint:

- **Existing positions:** changes in the carbon footprint of companies in our corporate fixed income and listed equity portfolio, relating to investments we held at the end of both 2023 and 2024.
- **Change in data coverage:** the impact of changes in the availability of complete data for companies in our portfolio.
- **Divested positions:** the impact of companies being removed from our portfolio over 2024.
- **New positions:** the impact of companies added to our portfolio over 2024.

The second layer breaks down the factors influencing our existing positions, as this is the driver from the first layer that offers the most comprehensive insights:

- **Change in carbon intensity:** the impact of the changing carbon footprint of individual companies in our portfolio.
- **Change in weight:** the impact of changes to the relative weighting of companies across our portfolio.
- **Interaction between weight and intensity:** the effect of interactions between changes in companies' weight and carbon intensity.

The third layer represents the most detailed level of insight, breaking down the drivers that influence the change in carbon intensity:

- **Change in EVIC values:** the impact of changes in the total value of a company.
- **Change in issuer emissions:** the impact of changes in the emissions (Scope 1 and 2 tCO₂e) of the companies we invest in.
- **Interaction between EVIC and issuer emissions:** the effect of interactions between changes in companies' EVIC and emissions.

Our approach is subject to the data limitations outlined on [pages 40 and 85 to 86](#). As set out on [page 28](#) of Royal London's [2024 Emissions Metrics Reporting Criteria](#), we endeavour to use the most up-to-date data available to us at the time of calculation. MSCI makes ongoing updates to its database. This is particularly important as MSCI data drives the categorisation of the drivers included in the first layer of analysis. MSCI data changes could lead to changes in the year-on-year classification of some positions when matching across data sets.



Metrics description and methodology *continued***Attribution analysis: detailed results**

Figure 15 presents a detailed breakdown of the findings of our attribution analysis on the Scope 1 and 2 carbon footprint of RLMIS' corporate fixed income and listed equity assets. For our key insights from the analysis, see [page 44](#).

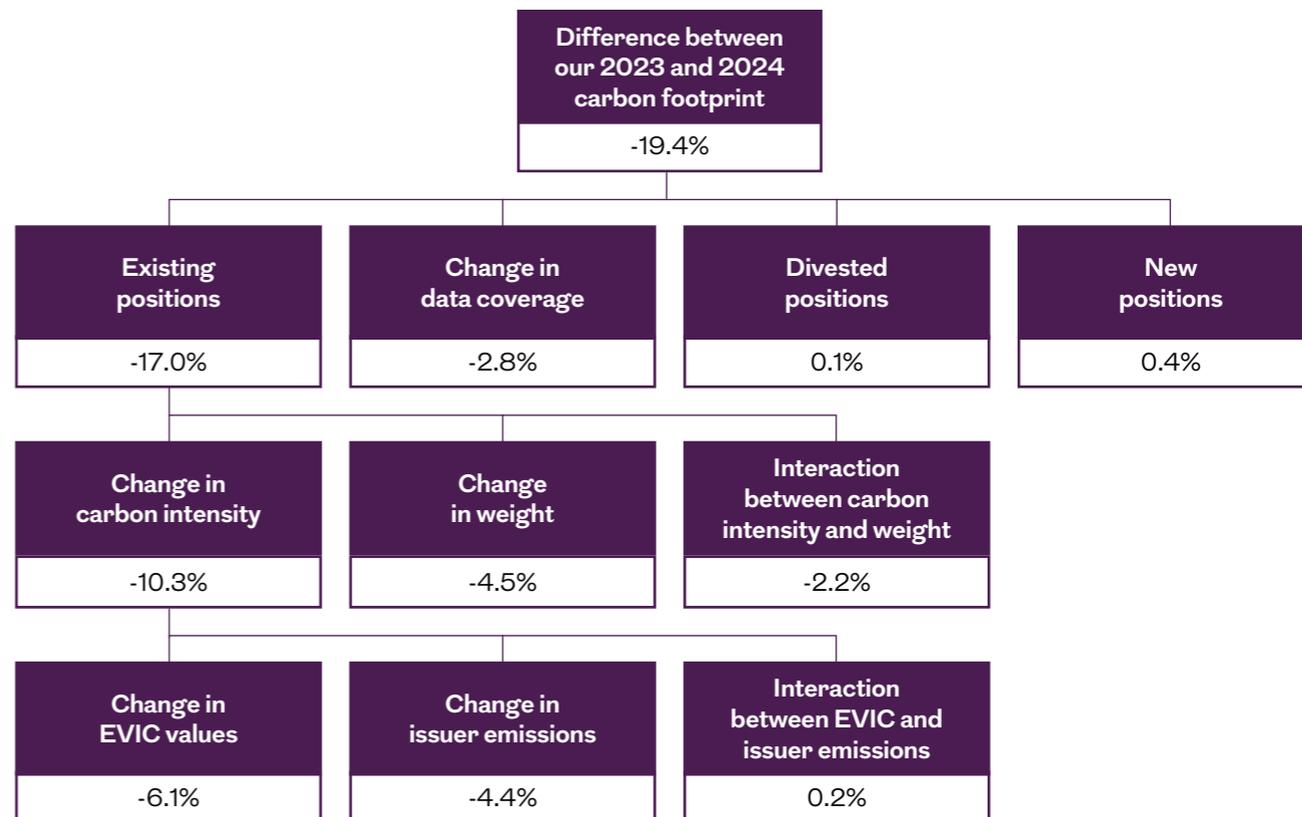
The carbon footprint of our portfolio decreased by -19.4% during 2024. At -17.0%, the reduction in the carbon footprint of our existing positions was the most significant driver of this decrease. Changes in the data available for existing positions accounted for -2.8% of the overall decrease, while there was a small increase due to divestments (0.1%) as well as new investments (0.4%) by RLMIS during 2024.

Changes in the carbon footprint of RLMIS' existing positions are important as we track progress towards reducing emissions from our investment portfolio. Change in carbon intensity, which tracks changes in carbon footprints of individual companies, accounted for -10.3% of the -17.0% total decrease in emissions from RLMIS' existing positions. The remaining reduction resulted from changes in the weighting of companies within our portfolio (-4.5%), as well as from investments where there was both a change in the carbon intensity of an issuer and a change in its weighting within our portfolio (-2.2%).

A change in EVIC, which assesses the total value of a company, was the most significant factor influencing the change in carbon intensity. This accounted for -6.1% of the total -10.3% reduction in carbon intensity. A reduction in issuer emissions accounted for -4.4% of the total reduction in carbon intensity. The remaining 0.2% change in carbon intensity was due to issuers that experienced both a change in EVIC values as well as a change in emissions.

For detail of the methodology used for this analysis, as well as the limitations of our emissions data, see [pages 40 and 85 to 86](#).

Figure 15: Analysis of year-on-year change in the Scope 1 and 2 carbon footprint of our corporate fixed income and listed equity assets¹



1. Percentages are rounded to one decimal place.

Metrics description and methodology *continued***Climate scenario analysis: methodology**

To understand how investment portfolios might be impacted under a range of climate pathways, we analysed a number of scenarios and possible impacts on our business model.

This was done by:

- using three pathways from the NGFS Phase 4 framework to inform future policy and technology assumptions, which influence modelled levels of GHG emissions
- estimating the associated temperature increases and economic impacts of physical warming under each scenario
- using these assumptions to estimate the impact on GDP at a regional level
- assessing the likely impact of these GDP changes on returns across asset classes.

Reductions in rates of return across asset classes were modelled to reflect how they are expected to change over the rest of this century. Impacts on asset returns, relative to a base scenario excluding climate pathway overlays, increase when moving from a scenario assuming faster transition (i.e. Below 2°C) to scenarios with slower transitions (i.e. Delayed Transition and Current Policies).

There is significant subjectivity involved in converting climate pathways into tangible asset-modelled scenarios. There is also significant subjectivity and uncertainty around what the potential impacts of these pathways will be on mortality rates and life expectancy in the UK. As a result, mortality and life expectancy were not considered in the 2024 quantitative analysis.

Data sources and quality**Financial data**

For The Royal London Mutual Insurance Society (RLMIS):

- portfolio data for corporate fixed income, listed equity and sovereign debt is from RLMIS internal financial data with values as at end of 2024.
- revenue and EVIC issuer data is provided by MSCI. Revenue figures are aligned to the emissions year and EVIC figures are the latest available.
- capita and PPP-adjusted GDP for sovereign issuers are provided by MSCI.

For Royal London Asset Management (RLAM), Royal London Unit Trust Managers (RLUTM) and RLUM:

- portfolio data for equities and fixed income are from RLAM financial data systems with values as at end of 2024.
- revenue and EVIC issuer data is provided by MSCI. Revenue figures are aligned to the emissions year and EVIC figures are the latest available.
- capita and PPP-adjusted GDP for sovereign issuers are provided by MSCI.

All of our emissions data across corporate fixed income, listed equity and sovereign debt assets is provided by MSCI. Data is obtained from MSCI on a point-in-time basis within 10 working days of year end, using the most recent figures available.

ITR, C-VaR and fossil fuel exposure are provided by MSCI. We take SBTi data directly from the public-access [website](#).

Data quality

PCAF data quality scoring for issuer emissions data, as assessed by our data provider is as follows:

PCAF Score	RLMIS (% corporate fixed income and listed equity)
1	0%
2	83%
3	0%
4	4%
5	0%
No coverage	13%

Sovereign debt emissions are based on a combined dataset and, as such, do not have a PCAF single quality score attached. The dataset relies on estimates for imported emissions which are rated as a PCAF Score 4. Therefore, the combined dataset might be considered to be rated as '4' as this is the lower score of the combined sources. We do not expect this to improve in the immediate future as sovereigns are not expected to report on imported emissions.

Details for the PCAF data quality scoring are described in [The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition](#).

Metrics description and methodology *continued*

Methodological and data assumptions, limitations and disclaimers

We recognise there are limitations associated with calculating portfolio emissions, including availability of data, methodology gaps across different asset classes, lack of consistency across the industry, data quality and transparency. There are also limitations to the reliability and usefulness of climate data due to the emerging nature of climate data applications and methodologies in finance. All data is supplied for information purposes only and should not be relied upon for investment decisions.

We endeavour to improve climate data in finance through our engagement with companies and data providers. We also collaborate with industry bodies such as the IIGCC, to support the evolution of good practice in climate emissions disclosures.

Although our information providers, including, but not limited to, MSCI ESG Research LLC and its affiliates, obtain information from sources considered reliable, none of the information providers warrants or guarantees the originality, accuracy and/or completeness of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. Details of the MSCI Notice and Disclaimer for Reporting Licenses can be found on MSCI's [website](#).

We have identified the following areas where limitations are most evident:

Aggregation and data coverage

The percentage data coverage for each metric is based on the portion of corporate fixed income and listed equity with available data and expressed in percentage value in the portfolio. For the portion of the portfolio

where data (emissions or financial data, including holding value, revenue or EVIC) is not available, the holdings are removed and the portfolio is reweighted to 100%. We follow the aggregation process that our data provider, MSCI, uses. The portion of our portfolio that has no climate disclosures is assumed to mirror the behaviour of the holdings with available data.

Sovereign bonds follow the same aggregation and coverage logic explained above and are treated as a distinct portfolio.

For further details on our assumptions and data limitations, see Royal London's [2024 Emissions Metrics Reporting Criteria](#).

Property is reported separately as the metrics are specific to this asset class. We classify assets internally to perform aggregation calculations.

Asset class coverage

Due to how our assets are internally categorised, a small portion of our corporate fixed income and listed equity, and sovereign debt portfolios are invested in other types of holdings such as private equity or supranational bonds, for which we do not have issuer emission data. There are some asset classes where emissions data or methodologies to calculate proxies are not readily available, such as derivatives and private markets, and therefore these are excluded from our analysis.

Accuracy and availability of financial data

The financial data standardised by ESG data providers used in this report may differ to data used in our internal financial analysis. For example, conversion rates and differences in tax system reporting make data less comparable.

Accuracy and availability of emissions data

Scope 1 and 2 emissions data

Not all companies disclose their emissions. The level and accuracy of disclosure varies across geographies and industry sectors, and where disclosures are made, they are typically subject to less rigorous auditing processes than financial data. Issuers disclose emissions with different levels of transparency, coverage and methodologies, making disclosures less comparable.

Reported emissions are supplemented by estimated emissions calculated by our data provider to allow for higher overall coverage, which can make emissions data less reliable.

For its property investments, since the 2019 reporting year RLAM Property has used estimates where actual data is not available, improving data coverage up to 100%. For data from 2019 to 2023, this is done by applying the Global Real Estate Sustainability Benchmark carbon intensity benchmarks to an asset's gross internal area. This approach is applied primarily to emissions from occupier-procured data, but also for landlord-procured energy, where appropriate. For 2024, these estimates have been calculated by applying our data platform provider's estimation methodology. This is computed based on data coverage levels ranging from data with 100% coverage to partial data using extrapolation, or indexing where no data is available. Extrapolation leverages known consumption within parts of the building to estimate missing values, while indexing compares the performance of similar assets within similar sectors and locations.

Scope 3 emissions data

Few companies are currently reporting their Scope 3 emissions resulting in only estimations being available for most of our holdings. Companies are selectively disclosing certain subcategories of Scope 3, often not the most material but the easiest to calculate, which can lead to underestimation of emissions if reported Scope 3 emissions are relied on for calculations.

There is a lack of consistency on the methodology being adopted across the industry to estimate these emissions. As a result, Scope 3 emissions can vary significantly across different data providers, and in the subsequent reporting across our peers. The Scope 3 estimation methodologies cannot follow entirely the GHG Protocol as it would require complete understanding of each company's entire value chain and market. Nonetheless, the methodologies are based on bottom-up company-specific data when available but can also use top-down sector intensities. Estimations allow for better like-for-like comparison of Scope 3.

We note that the Scope 3 emissions estimates are particularly weak for the financial services sector. This is mainly as methodologies for this sector are only recently being supplemented by PCAF, disclosures are more complex and estimations involve using reference proxy portfolios and sub-industry average emissions which are less accurate in nature than estimations for sectors where activities can be tracked by revenue split or assets.

Timeliness of emissions data reporting

The comparability and timeliness of companies' disclosures is limited. Timing of disclosure varies across jurisdictions and companies, with announcements on climate strategy or emissions targets not necessarily following the financial disclosure schedules.

Metrics description and methodology *continued*

Timeliness of emissions data reporting *continued*

The data reported may not always utilise the most recently reported emissions from our underlying holdings. Our external data provider makes regular updates to their databases following company disclosures but does not always report the most recent carbon emissions for all companies. This results in carbon data often being out of date by 12 to 24 months. We endeavour to use the most up-to-date data available to us at the time of calculation.

Forward-looking and portfolio alignment metrics

Forward-looking metrics are underpinned by many uncertainties and subjective choices. While we observed improvements, they may still:

- exclude widely accepted material climate risks that cannot be modelled, including the impacts from external policy decisions, market sentiment and climate tipping points
- rely on material subjective assumptions, including viability of investee net zero plans and assumed sector-level transition pathways.

Data providers' methodologies, using the latest available climate science, will inevitably need to evolve with changes in scientific understanding. This could make our year-on-year disclosures not comparable.

While quantitative information is useful, we do not rely on these forward-looking metrics for investment decisions or assessing climate risk exposure due to the limitations described below. This allows us to consider more nuanced qualitative assessment and judgement when making decisions.

Despite ongoing enhancements by data providers such as MSCI, modelling limitations look set to persist in the short term. We will continue to encourage enhancements by MSCI through regular engagement. We will strive to use and report the most logical and decision-useful data available. This approach will be kept under review as the quality of climate data for financials improves and as decision makers become more familiar with the basis and limitations of climate metrics.

Climate Value-at-Risk (C-VaR)

C-VaR relies on necessary climate model and socio-economic assumptions as well as cost and valuation calculations that reduce confidence in the metric.

The metric consists of three models: policy C-VaR, physical C-VaR and technology C-VaR. For each, climate impact is calculated at asset level and translated into impact on cost or return for the next 15 years.

- **Policy C-VaR** calculations make necessary assumptions on how much a company may need to reduce its GHG emissions due to climate policy and how much this may cost.

Assumptions include countries adequately disclosing their plans to the UNFCCC and implementing them. Carbon prices used to estimate costs are taken from IPCC-referenced integrated assessment models (IAM) and scenarios. IPCC and NGFS IAM scenarios assumptions are openly auditable and can be considered the latest science which informs policy. However, these models have assumptions around GDP growth, technology uptake and marginal abatement costs, which mean inherently each scenario for which a carbon price is taken will show only one possible alternative future.

- **Physical C-VaR** makes assumptions on the climate impact on a company's assets from climate change and how costly this could be in terms of increased business interruptions and/or asset damage.

Climate impact models are used that include chronic hazards such as gradual temperature, precipitation and snowfall changes, as well as acute hazards such as coastal flooding and cyclones. The impact of emissions on warming has lower uncertainties than the planet's warming effects on weather and climate and its implications in specific locations. Beyond the difficulty of accurately estimating the increase in vulnerability of assets due to climate change, estimating how much this may cost the business has additional assumptions, for example, how costs are aggregated from asset to business balance sheets, assumptions of companies' lack of adaptive capacity, and insurance costs.

- **Technology C-VaR** has embedded various assumptions on green technology ownership and uptake to estimate how much a company may benefit from transitioning to a low-carbon economy.

For this analysis, millions of low-carbon patents granted by various patent authorities are assessed. Using current green revenues and patent analysis to understand companies' low-carbon innovation, a model simulates which companies may benefit when policies from IPCC and NGFS IAM models that reach different warming goals are implemented globally. Assumptions are made on technology uptake, the returns these technologies will yield, and that patent ownership and citations are a good starting point to understand transition opportunity.

Further assumptions are embedded in the consolidation of each of the sub-model costs and its expression as a final aggregated financial metric. Yearly costs from the three models are added using different assumptions in line with IAM climate modelling, for example that climate policy cost peaks in the next decade and that climate physical risk costs grow steadily. Once all costs are added, a discount rate is applied to bring these to present value. Discount rates are controversial within climate models and economists have argued for different discount rates to be applied to climate cost, given that tail risk has very high impact. The final C-VaR expresses the present value costs of climate impacts over the current enterprise market value. An additional model splits this C-VaR into equity and debt following reasonable assumptions in line with market practice. There is no consideration as to whether the market has already priced in any of these risks.

Metrics description and methodology *continued*

Implied Temperature Rise (ITR)

The scientific inputs to the ITR model used by our data provider are carbon budgets based on IPCC-reviewed research. Carbon budgets link economic activity to levels of carbon emissions and these emissions to a level of warming by the end of the century. The relationship between emissions and warming is well-established by science, but other assumptions remain subject to scientific debate.

IPCC assertions and models have inherent uncertainties, probabilistic claims and confidence ranges typically used in climate science. For instance, the remaining carbon budget may change with new findings, as well as the upper boundary or worst-case warming scenario. Some modelling assumptions are socio-political, such as the rates of population and economic growth, and the relative importance of carbon removal strategies to expand the carbon budget through negative emissions.

Further uncertainties arise when the global scientific carbon budget concept is applied to company emission intensities and their trajectories over time. For ITR, the allocation of a carbon budget to a company is similarly based on the company's emission intensity per dollar of revenue. This means that changes in the company's revenues, for factors unrelated to its emissions reductions such as mergers and acquisitions or sector cyclicity, affect the company's implied temperature scores.

Binary target metrics

As with ITR models, a key assumption in alignment metrics is that companies' emission targets are met. These metrics, therefore, may not account for the dynamic nature of climate change and the need for ongoing adaptation and mitigation efforts. A company that is currently considered 'aligned' may not remain so in the future if it does not adapt to changing climate conditions or if the regulatory landscape shifts.

Other sources of uncertainty in the methodology include company emissions targets which are typically not standardised. These metrics provide limited detail regarding the climate targets that our investee companies have set, other than whether they have set these targets and if they are SBTi-approved.

SBTi provides a source of validation for corporate climate targets; however, the initiative does not provide full disclosure of the material provided by companies to obtain verification. SBTi approval is also not a necessary requirement of a credible net zero target — companies may have credible net zero targets while choosing not to align with SBTi. Conversely, MSCI's 'companies with targets across all scopes' metric is susceptible to including companies that have set weak or immaterial targets in its count.

The SBTi allows for different methods for corporates to establish and receive validation of targets, some of which are more likely to avoid a global overshoot of the 1.5°C carbon budget. Additional shortcomings include that the SBTi is solely focused on emissions reductions and not on full climate transition plans and does not provide a methodology for verification in key sectors where most global emissions are concentrated. Furthermore, the methodologies for target setting typically represent one possible path to net zero and there is a lack of acknowledgement of the multiple potential routes to net zero, or a broader systemic understanding of the role that different companies within a sector may have to deliver emissions reductions.

Exposure to fossil fuels

Issuers seldom disclose the percentages of revenues for business activities specific to fossil fuel activities. Therefore, this is estimated by ESG data providers. For our definition of fossil fuel revenues, we selected the percentage of issuers in our portfolio with any revenue related to the fossil fuel-related activity as the best proxy for our selected metric. While this approach is binary, it limits the data providers' assumptions needed to allocate a specific percentage of revenues to a business segment. It is important to note that this approach can lead us to overestimate our revenue exposures. It assumes 100% of the business activities are associated with fossil fuel revenues and, therefore, 100% of our position.

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