



LPP

Local Pensions Partnership
Investments

Real Estate Fund TCFD Product Report

For the period 01 January to 31 December 2024

Contents

Fund details

LEI 2138003C2OXS7C1PNE65

Fund size £1.6 billion

Date 31 December 2024

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Introduction

This TCFD product report has been produced by Local Pensions Partnership Investments (LPPI) as the manager of the LPPI Real Estate Fund (“REF” or “the Fund”) to inform and assist investors in the Fund with their climate-related financial disclosures.

Overview of the Fund

The Fund invests in a diversified portfolio of UK and international real estate assets with a focus on income generation. The Fund seeks to invest across uncorrelated sectors to provide stable returns. The mandate is flexible in terms of sector and geography. Investments are predominately core with no more than 25% of the Fund invested in value-add and opportunistic assets.

The Fund is a sub-fund of the LPPI Real Estate Asset Pooling Authorised Contractual Scheme (ACS), authorised by the UK Financial Conduct Authority (FCA). LPPI is the ACS manager who is incorporated in England and Wales and is authorised and regulated by the FCA. More information on the LPPI Real Estate ACS can be found on our [website](#).

Background to TCFD product reports

The recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) set out how organisations across sectors and geographies should disclose climate-related financial information. The recommendations are structured around four thematic pillars that represent core elements of how organisations operate: Governance, Strategy, Risk Management, and Metrics and Targets. We make detailed disclosures under each pillar within our LPPI TCFD Entity Report, consistent with the TCFD Recommendations and Recommended Disclosures, and as required by our regulator, the FCA.

Separately, we are also required to provide a product report for each of our authorised funds consistent with the TCFD Recommendations and Recommended Disclosures (“TCFD product report”). This is the product report for the LPPI Real Estate Fund and contains information specific to this.

Our approach with respect to Governance, Strategy, and Risk Management for the Fund does not deviate materially from LPPI’s overarching approach. Information on this is available in our LPPI TCFD Entity Report, available at www.lppi.co.uk.



St Leonards House, Lancaster



Strategy

Introduction

Our approach to assessing and managing the risks and opportunities posed by climate change reflects the following framing.

Climate-related risks include the adverse impact on the value of assets or income streams arising from transition risk and physical risk.

Transition risk is the risk of adverse changes in the value of assets or income streams arising from the nature and speed of mitigation and adaptation to climate change resulting from policies and requirements by governments, influential global bodies, and regulators.

Physical risk is the risk of adverse changes in the value of assets or income streams because of severe weather events, such as flooding, directly on physical assets or indirectly through business disruption, resource availability, and disruption to supply chains or service providers.

Physical risks can be acute, which are event driven, and chronic, which are longer-term shifts in climate patterns.

We have set out the broader climate-related risks and opportunities in our TCFD entity report. Our approach for the identification of these risks and opportunities was based on the categories defined by the TCFD Recommendations and Recommended Disclosures.

Our short-term horizon looks at a three-year period, which aligns with LPPI's business plan horizon and the triennial valuations of our partner funds. Our medium-term horizon looks forward up to 10 years, which covers the period to our interim investment net zero commitments. Our long-term horizon looks at the time horizon up to 2050, the target net zero-time horizon for the Fund.

Fund Strategy

The framing below informs how climate change is incorporated into our stewardship of assets and considered as part of asset allocation decisions and portfolio monitoring activities.

We delegate the management of our direct UK real estate (“UK Directs”) to Knight Frank Investment Management (“KFIM” or “Delegated Manager”), which represents approximately 53% of the assets of the Fund by value. In addition, in the reporting year, the Fund has single asset UK joint ventures (“JVs”) approximating a further 10% of the assets of the Fund. The remaining 37% relates to investments in externally managed funds (“Indirects”).

The Fund’s Investment team reviews, assesses, and monitors climate-related risks and opportunities across the portfolio on an ongoing basis. In relation to UK Directs, our Delegated Manager adopts a whole portfolio approach to determine the climate-related risks posed to these assets and are in the process of evolving their broader ESG strategy for the Fund to tackle wider market issues including engaging with our tenants to assist them where possible in transitioning to a low carbon economy.

Climate-related risks can vary materially between assets or companies even within the same sector. Thus, evaluating relevant risks and opportunities is a fundamental part of the investment process and ongoing portfolio management.

Engagement with the operators and management teams of our properties is ongoing with focus placed on enhanced data collection, risk monitoring, and discussions around retrofitting premises and the appropriate targets and disclosures for their business.

Policy and legal risks are generally considered to be the predominant transition risk to an asset or portfolio. For example, the minimum energy efficiency standards (MEES) legislation, applicable to private rented properties in England and Wales, makes it unlawful for a landlord to grant a new tenancy or to extend or renew an existing tenancy of commercial property that has an energy performance certificate (EPC) rating of F or G. The Government is expected to increase the minimum EPC rating to B by 2030, where cost effective. The EPC profile of our UK Directs is reported to us by the manager in quarterly reporting. This excludes JV direct assets in the UK and Indirects. The profile of the UK Directs EPC ratings is provided under Targets and Metric below.

The following table outlines the climate-related risks and opportunities that are specific to the Fund. We have provided illustrative examples of how the climate-related risks and opportunities could impact the Fund should they materialise, and note whether the potential impacts include increased costs, write-offs, or early retirement of existing assets.

Risk category	Risk description	Illustrative risk impacts	Primary timeframe
Transition: Policy and legal	Changes in laws, regulations, or policy guidance	Increased capital expenditure to comply with regulation requiring more energy efficient properties	Short term
Transition: Market & Reputation	Changing demand for and supply of property	Reduced demand from tenants in favour of more energy efficient property, leading to reduced property values and income streams	Short term
		Reduced demand from tenants due to reputation of the asset owner leading to reduced property values and income streams	Medium term
Physical: Operational	Acute and chronic climate impact on physical operations	Property affected by physical effects of climate change require increased recovery costs, insurance costs and capital expenditure	Long term
		Physical damage to property resulting in investment write-offs	Long term
Opportunity category	Opportunity description	Illustrative opportunity impacts	Primary timeframe
Resource Efficiency, Energy Source	Changes in technology, new technology	Investment in property to improve energy efficiency could lead to increased income streams and enhanced property values	Medium term
Markets, Products and Services	Access to new markets and enhanced portfolio diversification	Investment in more energy efficient property leading to increased tenant demand, income streams and enhanced property values	Medium term
Resilience	Investment in resilience to acute and chronic climate impacts	Investing in property in climate resilient locations could lead to increased income streams and tenant demand	Long term

We have procedures throughout our investment due diligence process which help to identify and manage climate-related risks for UK Directs before they are acquired. Additionally, several checks are carried out to identify and assess climate-related opportunities, these include assessing each new asset's potential for on-site renewable energy generation and reviewing alignment to legislative compliance and frameworks. At the post-acquisition stage, our Delegated Manager, on our behalf, is responsible for developing asset plans that incorporate sustainability key performance indicators, which property managers are annually assessed against. This ensures there is responsibility for managing climate-related risks and opportunities at the asset level.

We have been implementing climate-related risk mitigation measures for the most significant climate change risks directly held UK assets face, such as flooding. As part of this process, an in-depth asset by asset review was conducted, identifying potential flood risks and, if required, a more detailed survey of each high-risk asset was conducted to ensure there is an appropriate flood management plan in place. A flood risk assessment on all UK Directs is undertaken by our Delegated Manager on an annual basis as part of ongoing monitoring.



Metrics and targets

We use a range of metrics to quantify and monitor climate-related considerations for the Fund. The majority of metrics focus on carbon emissions which provide an indication of the relative positioning of the Fund.

The metrics presented in this section reflect the emissions intensity and portfolio alignment metrics for the UK Directs, JV's and Indirects.

Although we have included the emissions intensity and portfolio alignment metrics for Indirects, the available information and data is insufficient to be considered representative for the reporting year. This limitation affects our ability to provide comprehensive and actionable insights, which are essential for informed decision-making.

Work is underway to verify the data obtained for JVs, and to source additional climate-related information on the Indirects to improve coverage for subsequent years of reporting.

Fig.1 shows the proportion of carbon emissions data for the Fund's assets that is reported, estimated or where there is currently no data available.

Fig.1: Data Availability by AUM Covered (%) as at 31 December 2023

Asset class	Real Estate	
	31/12/22	31/12/23
AUM Covered (% of UK Directs & JV's)	100%	100%
AUM Covered (% of Indirects)	0%	100%
Reported Emissions Data (% of AUM covered)	83%	62%
Estimated Emissions Data (% of AUM covered)	17%	11%
No Data (% of AUM covered)	0%*	27%

* In 2022, we only reported on UK Directs and JVs because the data coverage for Indirects was too low and not representative of the Fund. Therefore, the Reported Emissions Data %, Estimated Emissions Data %, and No Data % in 2022 reflected the data coverage for UK Directs and JVs only. The data for Indirects is now included in the 2023 data.

For UK Directs, our Delegated Manager includes green lease clauses and follows a tenant engagement process to capture energy consumption, efficiency measures and fuel mix. This data is used to calculate the total greenhouse gas (GHG) carbon footprint.

The timelines with which data is available for underlying assets is challenging as there is a significant time lag between emissions being released, reported at the corporate level and being quality assured ready for disclosure. As such, in this report we apply tenant emissions data to relevant holdings as of 31 December 2023.

Property managers and external ESG consultants engage with tenants to gather broader metrics, such as health and well-being, and to assess building safety. Any identified risks are recorded as part of the property managers' inspections.

We review the below metrics to monitor transition risks and opportunities:

- EPCs by property type
- Number of properties with renewable electricity generation on site
- Operational carbon emissions (tnCO₂e)
- Operational carbon intensity (tnCO₂e/m² floorspace)
- Energy mix of tenanted properties
- Number of EV charging points

We also consider scenario analysis and flood risk ratings to identify physical risks and opportunities. More information is provided below.

Carbon footprint of our investments

The carbon footprint analysis considers capital employed, owned area, and average portfolio intensity. This method measures the carbon efficiency of a given portfolio, defined as the Absolute GHG emissions of the portfolio per \$m of Average Capital Employed (sum of capital employed divided by the months in the period and includes capital employed of sold assets).

Fig.2 provides the key measures for the Fund as of 31 December 2022 and 31 December 2023. Across these assets there are no landlord procured water or waste contracts and, as such, this emission stream is not included within the data presented below.

Fig.2: Climate Metrics

Climate Metrics	Unit of Measurement	31/12/22	31/12/23	31/12/23	31/12/23
		UK Directs & JV's	UK Directs & JV's	Indirects	Combined
Scope 1 GHG Emissions	tnCO ₂ e	231.0	35.6*	274.7	310.3
Scope 2 GHG Emissions – Market Based	tnCO ₂ e	127.4	0**	258.2	258.2
Scope 3 GHG Emissions – Tenant	tnCO ₂ e	7,630.1	10,607.1	5,719.3	16,326.4
Total GHG Emissions (Scope 1, 2 & 3)	tnCO ₂ e	7,988.4	10,574.2	6,252.2	16,894.9
Fund Carbon Footprint (Scope 1 & 2 & 3) GHG Intensity by Capital Employed	kgCO ₂ e/\$m invested	0.00	0.01	0.2	0.25
Weighted Average Carbon Intensity (Scope 1 & 2 & 3) GHG Intensity by Owned Area	kgCO ₂ e/m ²	19.4	24.6	11.2	35.8
Average Portfolio Energy Intensity	kWh/m ²	174.4	237.4	52.7	290.1
Total Reported Data Coverage for the Fund	AUM (%)	83%	89%	42%	63%

* Change in methodology in 2023: Vacant areas have been assigned zero consumption value or recorded consumption attributed to Scope 3. Vacant units consumption was included in Scope 1 in the 2022 TCFD Report.

** Change in methodology in 2023: Market-Based GHG emissions assumes 0 kg/CO₂e. All landlord electricity is 100% renewable. Because all landlord electricity is 100% renewable, a conversion factor of zero CO₂ per kWh was applied in 2023. Previously, in 2022, a conversion factor of 0.0153, originally from CRREM 2.03, was applied.



Carbon intensity metrics are used to assess climate-related risks and opportunities within our investment portfolios. Our backward-looking metrics include financed emissions, which are absolute, as well as intensity-based metrics. Our forward-looking metrics consider portfolio alignment with regards to implied temperature rise and portfolio coverage.

The GHG intensity metric is calculated using the net lettable area of UK Directs. We use this metric instead of Weighted Average Carbon Intensity (WACI), to understand emissions after adjusting for the size of a property as it is the most appropriate approach for a real estate fund and is recommended by the Partnership for Carbon Accounting Financials (PCAF), which is an industry-led partnership to facilitate transparency and accountability of the financial industry to the Paris Agreement.

Please refer to the appendix for key definitions and formulas used for calculating emissions metrics.

Total Carbon Emissions

The Total Carbon Emissions (a financed emissions metric expressed in in tnCO₂e) for both Scope 1 and 2, and Scope 3 (as of 31/12/2023) are presented here.

The total Scope 1 and 2 emissions reflect the energy associated with landlord-purchased gas and electricity.

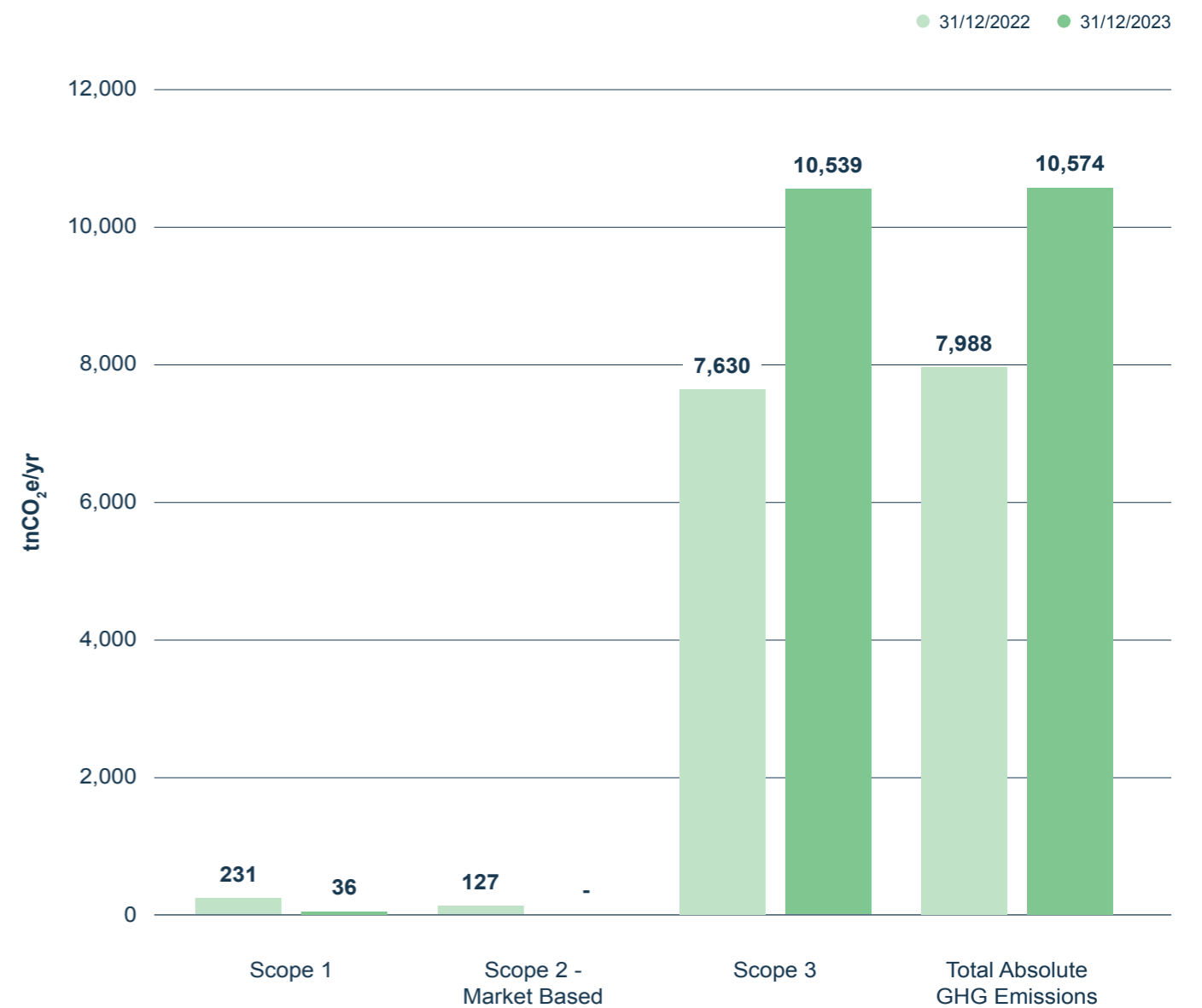
The energy purchased by the occupiers represent Scope 3 emissions. An occupier engagement programme is in place to support data collection efforts.

Over the period, the decrease in Scope 1 emissions can be explained by an update in methodology to assign zero consumption to vacant units (unless a specific meter was in place to record consumption). In 2022, reported Scope 1 emissions included total meter consumption and attributed per sqm consumption for vacant units.

For Scope 2 emissions, the decline to zero emissions can be explained by the updated methodology for vacant units (see above) and by the updated conversion factor zero CO₂ per kWh to renewable electricity. All landlord electricity is supplied with REGO-backed renewable electricity (certificates received) where a conversion factor of zero CO₂ per kWh for renewable electricity was applied. Previously (in 2022) a conversion factor of 0.0153, originally from CRREM 2.03, was applied.

The majority of GHG emissions is classified as Scope 3 representing the energy purchased by the occupants of the assets.

Fig. 3: Total Carbon Emissions (UK Directs excluding JV assets)



EPC metrics

The EPC metrics below reflect the position for UK Directs as of 31/12/2023.

Within UK Directs, c21% of assets (by "Estimated Rental Value of "ERV") fall under C band threshold, holding D or E rated EPCs. Most of our units fall within bands A-C (c79% of assets by ERV).

In preparation for the likely implementation of government legislation requiring a minimum B rating, the Fund is going to conduct a whole portfolio review to understand the potential implications and costs involved in getting each EPC to a minimum B rating.

Fig 4: EPC Ratings (UK Directs)

EPC Band	% Number of Units	% Area	% Rental Revenue (Passing)	% ERV
A	8.6%	7.7%	3.0%	5.7%
B	41.0%	45.7%	52.5%	48.8%
C	18.0%	27.9%	28.1%	24.5%
D	18.4%	14.6%	11.6%	14.5%
E	13.3%	4.1%	4.9%	6.5%
F	0.0%	0.0%	0.0%	0.0%
G	0.9%	0.0%	0.0%	0.0%
EPC missing or not yet applicable (developments)	0.0%	0.0%	0.0%	0.0%

Carbon Intensive Sector Exposure

We have assessed whether the Fund has concentrated or high exposure to carbon intensive sectors for the purposes of determining whether further qualitative or quantitative scenario analysis could be informative. A concentrated or high exposure is when the Fund has an exposure exceeding 15% for that respective sector. While we do not consider real estate to be a "carbon intensive" sector, for the purposes of this assessment we have designated as a high impact sector.

This is because real estate assets face various risks from the low-carbon transition, including rising carbon prices, stricter building and energy efficiency standards, and renewable energy mandates. These factors can lead to increased operating expenses and the need for significant investments to meet new standards. Potential government policy shifts towards 1.5°C-aligned carbon-emissions commitments could result in significant valuation impacts for real estate assets.



Scenario analysis

Climate scenario analysis is a valuable tool in ensuring the Fund achieves net zero and positively contributes to a 2°C or lower Paris Agreement target. We use the CRREM tool to apply the 1.5°C target to complement the retrofit budget needed to upgrade properties and relate this to internal budgets and available cashflows. According to the Net Zero Investment Framework (NZIF) supplementary guidance on target setting, an asset is considered to be "achieving net zero" if it is already meeting the energy and emissions intensity requirements set by the CRREM 1.5°C pathway for the year 2050. This means the asset's emissions performance is already equal to or better than what is required by its sector/regional pathway for 2050, and its operational model is expected to maintain this performance.

CRREM publicly released decarbonisation pathways to translate the ambitions of limiting global warming to 1.5°C and 2°C by the end of the century into regionally- and property-type-specific trajectories against which real estate assets and portfolios can benchmark themselves.

Climate Scenario Analysis	31/12/22	31/12/22	31/12/23	31/12/23
	UK Directs (%)	Benchmark (%)	UK Directs (%)	Benchmark (%)
Aggregated Climate VaR	-5.8	-9.8	-4.9	-6.8
Transition Climate VaR	-4.2	-5.9	-4.7	-6.3
Physical Climate VaR	-1.7	-3.8	-0.2	-0.4
Coverage (Physical VaR), % Capital Value	100.0	100.0	100.0	100.0
Warming Potential (°C)	2.9	3.8	2.2	2.6

The scenarios are used to assess the impact of the risks, incorporating valuable factors ranging from frequency, duration, velocity, and its financial impact towards the business.

We also compare the physical risks in contrast with transition risks which would occur from moving into a lower-carbon economy.

In 2022, we subscribed to the MSCI climate platform to provide a holistic view of the risks posed by climate change. We have begun to prepare for the upcoming transitional risks such as more stringent environmental policy including calculating Climate Value at Risk (CvaR). CvaR looks at the impact on the net present value of the asset from future costs attached to transition risk (lowering the carbon emission of the asset in the future), physical risk (cost of damage due to extreme weather), or the sum of both, expressed as a % of the asset's capital value. It is calculated for a given carbon emissions reduction scenario or climate change scenario, with a given scenario outcome (aggressive or average) in case of physical risk.

The results of scenario analysis on UK Directs are presented below:

In a "Hot House" scenario, we expect to see greater physical risk than transition risk. This scenario assumes a business-as-usual outcome with less pressure from governments and regulators for industries to transition away from fossil fuels. Global efforts to address climate change are considered insufficient in this scenario to meet the Paris Temperature Goal. While transition risk may be lower, the severity of physical risks poses a greater risk to the portfolio as global warming is expected to continue unchecked, resulting in likely irreversible changes in climate in the long term.

In running the physical and transitional risk reports, we can identify what our most material issues are and their potential impacts.

These risks include a prospective of costly damages upon assets, fines and voids, a loss of footfall to our assets, increased operating costs and a possible overall loss of rental value or heightened "stranded asset" risk. With this information, we can target a holistic understanding of how climate-related risks can affect the Fund and how the implementation of ongoing risk management is monitored throughout the year.

The table below outlines the capital value impact across several identified physical risks that may impact the Fund under two outcomes: aggressive and average.

Physical Risk	Aggressive Outcome		Financial Risk Category	Average Outcome		
	REMIND 3°C (Current Policies)			REMIND 3°C (Current Policies)		
	% of UK Directs	USDm CV		% of UK Directs	USDm CV	
Extreme Cold	0.0	0.0	No identifiable risk	0.0	0.0	No identifiable risk
Extreme Heat	0.0	-0.1	Negligible Risk	0.0	-0.1	No identifiable risk
Fluvial Flooding	0.0	-0.1*	Negligible Risk	0.0	0.0	No identifiable risk
Coastal Flooding	0.0	0.0	No identifiable risk	0.0	0.0	No identifiable risk
Tropical Cyclones	-0.1	-1.7*	Negligible Risk	0.0	-0.2	Negligible Risk
Wildfire	0.0	0.0	No identifiable risk	0.0	0.0	No identifiable risk
Aggregate Physical Climate VaR	-0.2	-2.4	Negligible Risk	0.0	-0.6	Negligible Risk

* Increased long-term risk from tropical cycles can be attributed to improvements made over the period to MSCI's risk model, Fathom. The model generates lower fluvial and coastal flood risk readings and incorporates an elevation model in addition to a flood protection model using more localised datasets than prior periods.

In summary it's able to isolate where flood protection may be in place and look at the amount of water which may breach these defences rather than assuming a direct breach.

Flood Risk Ratings

The UK Environment Agency provides flood risk ratings to help assess vulnerability to flooding. It categorises flood risk into different levels based on the likelihood of flooding in a specific area. The ratings include ‘Low Risk’ (areas where flooding is unlikely or rare); ‘Medium Risk’ (areas with moderate flood risk, which may experience occasional flooding); and ‘High Risk’ (areas prone to frequent or severe flooding where properties in these areas are at significant risk).

Our Delegated Manager has undertaken site-specific flood risk assessments for properties located in flood risk zones 2 and 3 (EA Flood Risk Map for Planning). The assessment found for medium-risk properties in the portfolio, there is a probability that in any year land has between a 1% and 0.1% chance of flooding from rivers and between a 0.5% and 0.1% chance of flooding from the sea. For high-risk properties in the portfolio, there is an annual probability that in any year land has a 1% or more chance of flooding from rivers, or a 0.5% or more chance of flooding from the sea.

Of the 9 assets located in flood zones 2 and 3, two are protected by the Thames Barrier, while the balance are considered either low or very low risk based on site-specific risk assessments carried out.

We have set the requirement for acquisitions to be permitted only in areas with less than 0.1% (1 in 1000, zone 1) chance of flooding from rivers or the sea occurring each year as assessed by the Environment Agency Flood Map for Planning, unless specifically approved by us.

In all cases, properties will not be acquired unless the risk of surface water flooding has been assessed and considered in the purchase price where necessary. In addition, anything including and over a ‘medium’ risk will need to be approved by us. As of 31/12/2023, we have assessed the rental value (% of UK Directs portfolio annual rental amount) subject to high, medium, and low risk. In some cases, assets within the portfolio were under construction at the time of analysis and excluded from this report.

Probability of Flooding	31/12/22	31/12/22	31/12/23	31/12/23
	Number of Assets	Rental Value Flood Risk	Number of Assets	Rental Value Flood Risk
High	4	6.00%	4	5.77%
Medium	6	13.20%	5	11.23%
Low	39	80.80%	40	83.00%

Source: LPPI, KFIM, UK Government Flood for Planning Map Service



Our net zero targets

LPPI has voluntarily made a public commitment to the goal of aligning our portfolio with net zero emissions by 2050 in line with the IIGCC Net Zero Investment Framework (NZIF). The targets encompass UK Directs, 2 additional single asset JV's and Indirects.

Collectively they cover 100% of the Fund's assets. Work continues to source information on the Indirects portion of the Fund. Our Net Zero targets for Indirects have only recently been set and will be monitored over 2025 and will be reported in the next report.

	Portfolio Decarbonisation target	Portfolio Alignment target	Engagement target	Baseline
Purpose	Monitoring the portfolio's decarbonisation trajectory over time with the goal to align the portfolio emissions intensity with net zero emissions by 2050 or sooner.	A target for increasing the value of assets already meeting conditions required for being assessed as net zero or taking the actions to move them into this position.	A target for increasing the proportion of total financed emissions from companies already meeting conditions required to be considered aligned with net zero, or under focused engagement on the actions needed.	
Real Estate Fund (UK Directs & JV's)	The LPPI Real Estate Fund direct portfolio is targeted to achieve a reduction in (average) emissions intensity of 50% by 2030 (December 2029) from the fund's own baseline position in December 2022.	At least 90% of direct portfolio will be assessed as net zero, aligned or aligning with a net zero pathway by 2025, with overall ambition 100% of assets to be net zero or aligned by 2040.	90% of the direct portfolio will be assessed as net zero, aligned with a net zero pathway or the subject of direct or collective engagement and stewardship actions by 2024.	31/12/2022
Real Estate Fund (Indirects)	No target. Our Engagement target has been established to increase emissions data coverage managed by third party managers as soon as possible to at least 70% to allow for a decarbonisation objective to be set.	Increase the percentage of AUM managed by third party managers which are at least 'aligning' to at least 50% by 2030.	Increase emissions data coverage managed by 3rd party managers as soon as possible to at least 70% to allow for a decarbonisation objective to be set.	31/12/2022
		By 2040, 100% of AUM managed by 3rd party managers should be classed as 'aligned' or 'net zero'. Managers of fixed-life value-add & opportunistic funds will be excluded from the aforementioned alignment target. Their decarbonisation progress will be assessed individually.	Ensure that at least 90% of AUM managed by third party managers are either categorised as achieving net zero, aligned to a net zero pathway, or are subject of direct or collective engagement and stewardship actions by 2026.	31/12/2022
		Ensure 100% of managers of fixed-life value-add and opportunistic funds are subject to engagement by 2030.		31/12/2022

Decarbonisation target

Real Estate Fund (UK Directs & JV's)

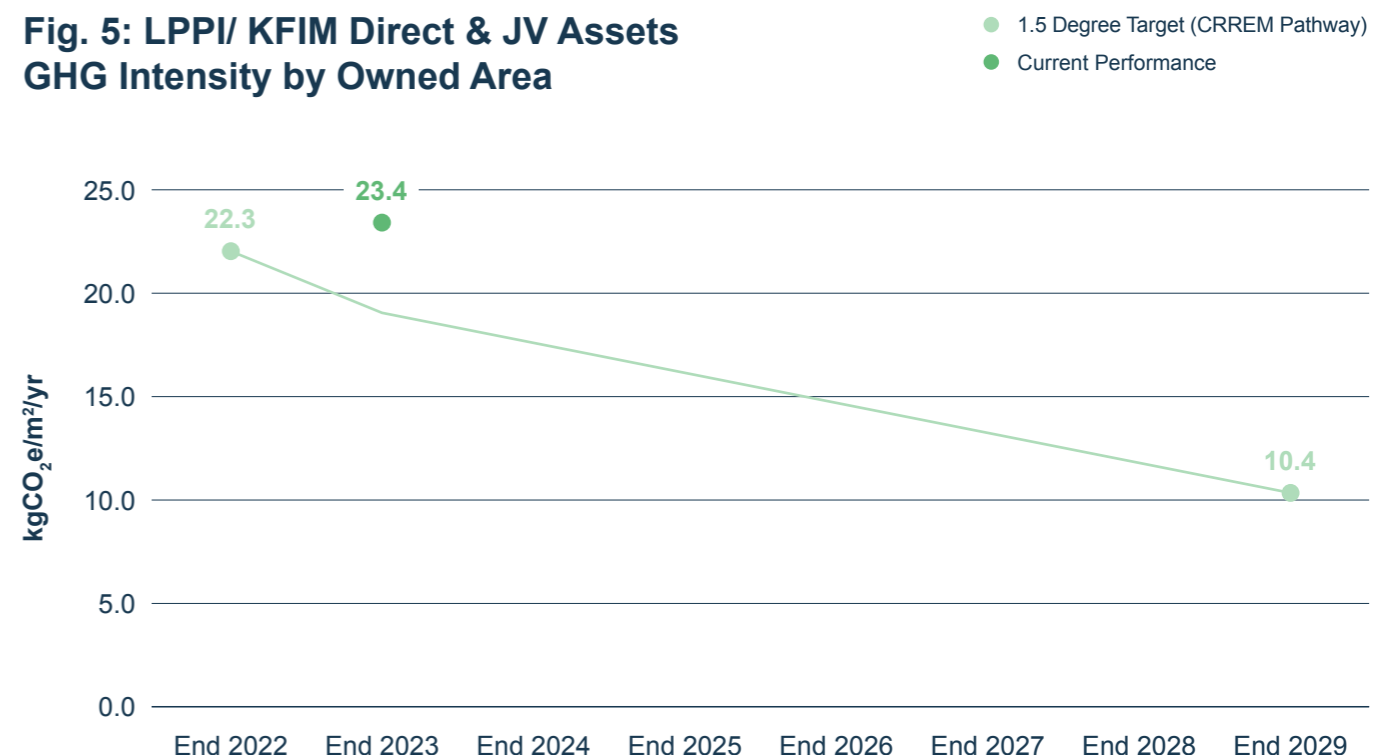
Target: The net zero target is a decarbonisation pathway of 50% reduction in (average) emissions intensity from December 2022 to December 2029.

The graph below presents the GHG intensity, covering 63% of the Fund's assets, benchmarking it against the floor- area-weighted decarbonisation pathway.

The decarbonisation pathways developed by the CRREM initiative serve as a science-based, widely recognised, easily understandable basis for actionable targets. The GHG intensity is currently above the 1.5°C target.

Total GHG increase (by owned area) from 22.3 in 2022 to 23.4 2023 is due to increased coverage and accuracy of data collected.

Fig. 5: LPPI/ KFIM Direct & JV Assets GHG Intensity by Owned Area



Asset alignment target

Please refer to the appendix for the definition of Net Zero, Aligned and Aligning.

Material sectors have been defined by IIGCC for consistency in the IIGCC Net Zero Implementation Guide. They are the sectors whose activities make the largest contribution to total emissions globally and which will need to produce the materials, develop the critical technologies, and evolve the lower emitting, more energy efficient processes that achieving a sustainable global economy depends on. Given the nature of the Fund, we also consider Real Estate a material sector for the Fund.

Alignment	End 2022	End 2023
Real Estate Fund (UK Directs & JV's) - Actual	95%	100%
Real Estate Fund (UK Directs & JV's) - Interim Alignment Target	90%	90%

Real Estate Fund (UK Directs & JV's)

Target: 'At least 90% of the direct portfolio will be assessed as net zero, aligned or aligning with a net zero pathway by 2025, with the overall ambition for 100% of assets to be assessed as net zero or aligned by 2040.'

The alignment coverage metric, calculated as the aggregated % AUM of the Fund in material sectors that is Net Zero, Aligned, or Aligning, was 100% in Dec-2023.

Real Estate Fund (Indirects)

Target 1: 'Increase the percentage of AUM managed by third party managers which are at least 'aligning' to at least 50% by 2030.'

Target 2: 'By 2040, 100% of AUM managed by third party managers should be classed as 'aligned' or 'net zero'. Managers of fixed-life value-add and opportunistic funds will be excluded from the aforementioned alignment target. Their decarbonization progress will be assessed individually.'

Alignment	End 2022	End 2023
Not Aligned	49%	38%
Committed to aligning to Net Zero	50%	32%
Aligning to a Net Zero by 2050 pathway	0%	10%
Aligned to a Net Zero by 2050 pathway	1%	20%
Achieving Net Zero	0%	0%

Engagement target

Real Estate Fund (UK Directs)

Target: 90% of the direct portfolio will be assessed as net zero, aligned with a net zero pathway or the subject of direct or collective engagement and stewardship actions by 2024.

The following table illustrates progress against the engagement target. The % of financed emissions (the Total Carbon Emissions metric) in material sectors that are Net Zero/Aligned/under direct or collaborative engagement as of December 2023 are:

Alignment/ Engagement	31/12/22	31/12/22	31/12/23	31/12/23
	% of Financed Emissions by AUM	Total Cumulative	% of Financed Emissions by AUM	Total Cumulative
Net Zero	0.00%	0.00%	3.44%	3.44%
Aligned	30.50%	30.50%	49.91%	53.35%
Aligning	69.20%	99.70%	46.65%	100.00%
% of financed emissions that are under direct engagement (if not already Aligned)	0.30%	100.00%	0.00%	100.00%



Real Estate Fund (Indirects)

Target 1: ‘Ensure that 100% of managers of fixed-life value-add and opportunistic funds are subject to engagement by 2030.’

Target 2: ‘Increase the emissions data coverage managed by third party managers as soon as possible to at least 70% to allow for a decarbonisation objective to be set.’

Engagement	End 2022	Engagement	End 2022	End 2024
Real Estate Fund (Indirects) - Actual Fixed-Life Value-Add and Opportunistic Funds	0%	Real Estate Fund (Indirects) - Actual Third Party Manager Data Coverage	46%	
Real Estate Fund (Indirects) - Fixed-Life Value-Add and Opportunistic Funds Engagement Target	0%	Real Estate Fund (Indirects) - Third Party Manager Data Coverage Target	46%	70%

Target 3: ‘Ensure that at least 90% of AUM managed by third party managers are either categorised as achieving net zero, aligned to a net zero pathway, or are subject of direct or collective engagement and stewardship actions by 2026.’

Engagement	End 2022	End 2024	End 2024	End 2024
Subject of direct or collective engagement and stewardship actions	0%			
Aligned to a Net Zero by 2050 pathway	1%			
Achieving Net Zero	0%			
Real Estate Fund (Indirects) - Actual Third Party Managers Interim	1%			
Real Estate Fund (Indirects) - Third Party Manager Interim Engagement Target	1%	31%	60%	90%

Appendix

Metrics and data limitations

We are reliant on assessments of our holdings alignment status provided by our Delegated Managers and map Delegated Manager provided data to our own alignment framework as closely as practically possible. The engagement activity is carried out by our managers on our behalf and is reported to us alongside the alignment data.

Data coverage and quality

Accurate computation of climate-related metrics in investment portfolios requires high quality security-level data including GHG emissions for underlying investee companies. Many companies are measuring and publicly reporting their GHG emissions, which facilitates the type of high-quality data that investors need to effectively calculate climate-related portfolio metrics. However, many companies have not yet begun their emissions reporting journey.

Recognising that deferring measurement and reporting until 100% reported data is available would impede the progress, we could make in the near-term in providing transparency to stakeholders, estimates were used to fill data gaps, when necessary. Estimated data reduces the reliability of the metrics since estimated emissions may not accurately reflect the actual emissions of any given company. Over the period, updates to data coverage and quality for the fund and index have resulted in changes to metrics reported in last year's report.

Lagged data

Climate-related data reporting by companies is often produced on a lag relative to financial data – as most climate-related data disclosure and reporting takes place on an annual basis and requires significant time to produce. In addition, there may be a lag between the time when data is disclosed by companies and when it is incorporated into the dataset produced by MSCI. While we sought to mitigate the impact of lagged data on the estimates by varying the holdings analysis date and the emissions effective date, emissions data included in the analysis for a given holding each year may reflect GHG emissions from prior year(s) for at least a subset of holdings included in the analysis.

Carbon emissions metrics explained

We use the following metrics to measure the collective carbon impact of the Fund's holdings, calculated according to TCFD standards, which in turn are based on the internationally accepted GHG Protocol:

Metric	TCFD definition, based on GHG Protocol
Scope 1 Greenhouse Gas Emissions (Metric Tonnes)	Direct GHG emissions that occur from sources that are owned or controlled by the company.
Scope 2 Greenhouse Gas Emissions (Metric Tonnes)	GHG emissions from the generation of purchased electricity consumed by the company.
Scope 3 Greenhouse Gas Emissions (Metric Tonnes)	GHG emissions that are a consequence of the activities of the company but occur from sources not owned or controlled by the company.
Total Greenhouse Gas Emissions (Metric Tonnes)	Total of Scopes 1 and 2 until June 2024, and total of Scope 1, 2, and 3 from June 2024 onwards.
Total Carbon Footprint (Metric Tonnes per \$1m AUM invested)	Total carbon emissions for a portfolio normalised by the market value of the portfolio, expressed in tonnes tCO ₂ e/\$m invested.
GHG Intensity by Capital Employed	Greenhouse Gas (GHG) Intensity by Capital Employed refers to the measurement of greenhouse gas emissions in relation to the capital invested or capital employed in an economic activity. It quantifies the environmental impact of a business or industry based on the amount of GHGs emitted per unit of capital invested.
GHG Intensity by Owned Area	Greenhouse Gas (GHG) Intensity by Owned Area is a metric that assesses the environmental impact of greenhouse gas emissions in relation to the total area owned or controlled by an entity.

LPPI calculates the emissions performance of its investments through two metrics:

Metric	Formula	Description
Carbon Intensity	$\sum_i \left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \text{Issuer's Scope 1 and Scope 2 GHG emissions}_i \right)$ $\sum_i \left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \text{Issuer's \$M revenue}_i \right)$	Carbon emissions intensity-measures the volume of carbon emissions per million dollars of revenue, also known as the carbon efficiency of a portfolio, expressed as tCO ₂ e/\$m revenue
Carbon Footprint	$\frac{\sum_i \left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \text{Issuer's Scope 1 and Scope 2 GHG emissions}_i \right)}{\text{Current portfolio value (\$M)}}$	Portfolio carbon footprint- total carbon emissions for a portfolio normalised by the market value of the portfolio, expressed in tCO ₂ e/\$m invested.

PAI Net Zero Alignment

Net Zero	An asset which is already achieving the energy and emissions intensity required by the CRREM 1.5°C pathway at 2050
Aligned	An asset which is on track with the current energy use and emissions intensity levels that are consistent with achieving net zero and is expected to remain consistent the CRREM pathway based on projected performance including planned retrofits
Aligning	An asset with a target to achieve consistency with CRREM pathway, and evidence of a strategy to achieve this
Not aligned	All other assets

NGFS Climate Scenarios

The Network for Greening the Financial System (NGFS) provides several key climate scenarios that are used for analysing risks in various sectors, including real estate.

Orderly	This scenario assumes that climate policies are introduced early and gradually become more stringent. Both physical and transition risks are relatively low because the transition to a low-carbon economy is well-managed.
Disorderly	In this scenario, climate policies are delayed or implemented unevenly across regions and sectors. This leads to higher transition risks due to abrupt policy changes and higher costs associated with reducing emissions.
Hot House World	This scenario assumes that some climate policies are implemented, but global efforts are insufficient to prevent significant global warming. This results in severe physical risks, including irreversible impacts on ecosystems and human health.
Too Little, Too Late	This scenario assumes a late and uncoordinated transition that fails to limit physical risks. Both physical and transition risks are high, leading to significant economic and environmental consequences.

Glossary

AUM

Assets under management.

Baselining

Establishing the starting point against which targets will be set and progress measured.

Benchmark-relative approach

Uses the emissions of a comparator benchmark at a point in time to reference an emissions reduction target against and measure progress.

CDP

CDP (previously the Carbon Disclosure Project). [Visit the website.](#)

CRREM

Carbon Risk Real Estate Monitor.

Climate Value at Risk (CVaR)

CVaR is MSCI's full quantitative scenario analysis solution, designed to provide a forward-looking and return-based valuation assessment of listed equity and debt securities in order to measure climate related risks and opportunities in an investment portfolio.

EVIC

Enterprise Value including Cash.

FCA

Financial Conduct Authority. Regulates financial services firms and financial markets in the UK.

Financed emissions

The emissions associated with our assets under management based on attributing a share of the total emissions produced by underlying companies in proportion to the size of the investment we hold.

GHG

Greenhouse Gas emissions.

IIGCC

Institutional Investors Group on Climate Change.

Investment universe

A selection of assets which reflect an investable universe, generally grouped based on the preferences of an investment strategy in terms of, for example, sector, industry, or regional exposure.

IPCC

Intergovernmental Panel on Climate Change IPCC Special Report on the impacts of global warming of 1.5°C.

ITR

Implied Temperature Rise.

IPV

Investment Pooling Vehicle.

Material Sectors

Material sectors have been defined by IIGCC for consistency in the IIGCC Net Zero Implementation Guide. They are the sectors whose activities make the largest contribution to total emissions globally and which will need to produce the materials, develop the critical technologies, and evolve the lower emitting, more energy efficient processes that achieving a sustainable global economy depends on.

MSCI

Morgan Stanley Capital International (MSCI)

NACE

A statistical classification in use within the European Community.

Net zero

Achieving an overall balance between man-made emissions (GHG) produced and those taken out of the atmosphere, in order to neutralise the impact of any source of residual emissions that remains unfeasible to be eliminated by permanently removing an equivalent amount of atmospheric carbon dioxide.

NZIF

Net Zero Investment Framework.

NZAM

Net Zero Asset Managers initiative. 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 Degrees Celsius; and to supporting investing aligned with net zero emissions by 2050 or sooner.

NGFS

Network for Greening the Financial System. A group of central banks and supervisors willing, on a voluntary basis, to share best practices and contribute to the development of environment and climate risk management in the financial sector and to mobilise mainstream finance to support the transition toward a sustainable economy.

Paris Agreement

United Nations agreement which includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change and calls on countries to strengthen their commitments over time. The Agreement provides a pathway for developed nations to assist developing nations in their climate mitigation and adaptation efforts while creating a framework for the transparent monitoring and reporting of countries' climate goals.

PCAF

The Partnerships for Carbon Accounting Financials.

Portfolio self-decarbonisation

Using portfolio emissions at a point in time to reference an emissions reduction target against and measure progress.

SBTi

The Science Based Targets initiative defines and promotes best practice in science-based target setting. Offering a range of target-setting resources and guidance, the SBTi independently assesses and approves companies' targets in line with its criteria.

Scope 1, 2 and 3

Scope 1, 2 and 3 emissions are a way of categorizing business emissions, accounting for both direct and indirect emitted GHGs. In more details:

- Scope 1 emissions are GHGs released directly from owned or controlled sources of the company.
- Scope 2 emissions are indirect GHGs released from the energy purchased by the company (generation of electricity, heat or steam purchased).
- Scope 3 emissions are indirect GHGs released by the value chain of the company, excluding the Scope 1 and 2 emissions, for both upstream and downstream emissions.

Stewardship

The responsible allocation, management and oversight of capital to create long-term value for our partner funds and beneficiaries leading to sustainable benefits for the economy, the environment and society (UK Stewardship Code 2020).

Total carbon emissions

The sum of all the emissions in the portfolio based on the investor's ownership share.

TPI

Transition Pathway Initiative. [Visit the website.](#)

Universal global benchmark

A benchmark stock index which is representative of the global economy, for example the MSCI All Country World Index.

Weighted Average Carbon Intensity (WACI)

Weighted Average Carbon Intensity is the measure of a portfolio's exposure to carbon-intensive companies, expressed as tCO₂e/\$m company revenue.

For more information about LPPI, visit our website or contact us to discuss your specific requirements in more detail.

lppi.co.uk
info@lppi.co.uk
020 7369 2666

Local Pensions Partnership Investments
1 Finsbury Avenue
London EC2M 2PF

 @LPPInvestments
 Local Pensions Partnership Investments

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