



**London CIV  
Climate Analytics**

06 February 2024

## Introduction

We are pleased to present the London CIV Climate Analytics report for the **London Borough of Camden Pension Fund**. The report provides an overview of climate-related risks and opportunities according to the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD).

This report aims to inform the development of decarbonisation strategies, internal risk management, and support climate-related disclosures.

Should you require any further information regarding any aspect of your about the report or service, please contact our Client Service Team via e-mail ([clientservice@londonciv.org.uk](mailto:clientservice@londonciv.org.uk)).

London CIV acknowledges the contribution of S&P Trucost Limited (“Trucost”) data and analytics in the production of this report and we draw your attention to the disclaimer on limitations associated with the Trucost data at the end of this report.

Trucost assesses risks relating to climate change, natural resource constraints, and broader environmental, social, and governance (ESG) factors. For more information, visit [www.trucost.com](http://www.trucost.com)



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## Parameters

<b>Fund Name:</b>	<b>LGIM - LB Camden Global Equities</b>
<b>Benchmark Name:</b>	<b>MSCI ACWI Index</b>
<b>Holdings Date:</b>	30 June 2023
<b>Analysis Date:</b>	06 February 2024
<b>Currency:</b>	GBP
<b>Sub-fund Value</b>	412 mGBP
<b>Value Covered</b>	407 mGBP

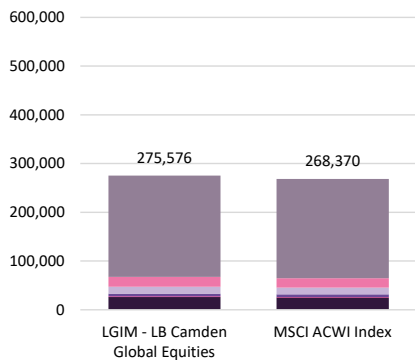
**A note on mapping:** London CIV Climate Analytics leverage the Trucost Core Plus Universe, and the S&P Market Intelligence Capital IQ® platform to map listed equity and corporate fixed income instruments to their issuing entity. Detailed coverage lists can be provided upon request.

## Carbon Footprint

The Task Force for Climate-related Financial Disclosures recommends asset owners to include carbon footprinting information in their reporting to support the assessment and management of climate-related risks.

### Total Carbon Footprint (tCO2e)

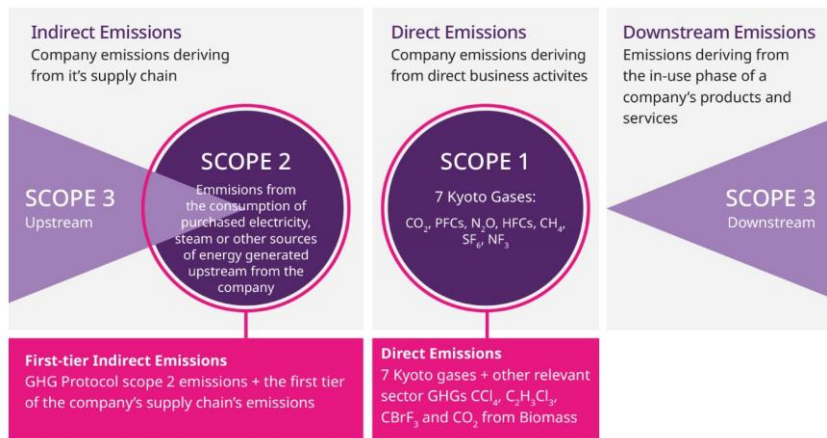
The chart below shows the total tonnes of carbon dioxide equivalents (tCO2e), broken down by scope.



- Downstream (Scope 3)
- Other Supply Chain CO2e (Scope 3)
- Non-Electricity First Tier Supply Chain CO2e (Scope 3)
- Purchased Electricity CO2e (Scope 2)
- Direct CO2e (Other)

### Understanding Emissions Scopes

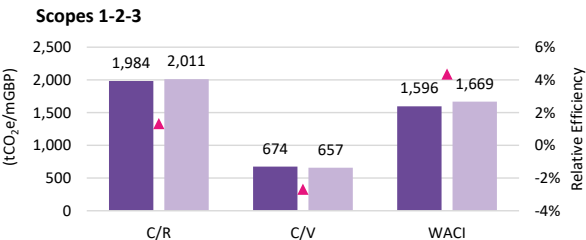
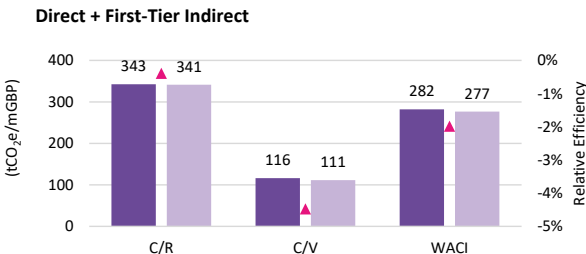
The diagram below summarises the different emissions scopes that can be included in footprint calculations. Restricting the scope to direct operational emissions only (scope 1) removes the risk of double counting carbon but conceals carbon risk exposure present within value chains.



Carbon emissions should be 'normalized' by a financial indicator (either annual revenues or value invested) to provide a measure of carbon intensity. The Task Force for Climate-related Financial Disclosures favours the weighted average carbon intensity as preferred metric.

**Carbon Intensity (tCO2e/mGBP)**

The charts below provide an indication of the carbon intensity using the three main methodologies, carbon-to-revenue (C/R), carbon-to-value (C/V) and weighted-average carbon intensity (WACI). The analysis was completed for two sets of emission scopes.



■ LGIM - LB Camden Global Equities    ■ MSCI ACWI Index    ▲ Relative Efficiency

**Carbon Intensity Methodologies**



Impact-based

**1. Carbon to Revenue (C/R)**

Carbon to Revenue provides an indication of carbon efficiency with respect to output (as revenues are closely linked to productivity).

$$\frac{\sum_i^n \left( \frac{C_i}{EVIC_i} * I_i \right)}{\sum_i^n \left( \frac{R_i}{EVIC_i} * I_i \right)}$$

**2. Carbon to Value Invested (C/V)**

Carbon to Value provides an indication of efficiency with respect to shareholder value creation. It is a pertinent indicator of an investor's contribution to climate change.

$$\frac{\sum_i^n \left( \frac{C_i}{EVIC_i} * I_i \right)}{\sum_i^n I_i}$$

Risk-based

**3. Weighted Average Carbon Intensity (WACI)**

The weighted average method seeks to calculate exposure to carbon intensive companies, i.e. is not an additive in terms of carbon budgets.

$$\sum_i^n \left( \frac{C_i}{R_i} * w_i \right)$$

I: Investment Value    C: tCO2e    R: Revenues  
 EV: Enterprise Value    w: Weight

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4 Disclaimer

Attribution analysis explains how sector allocation and stock selection contribute to a smaller or larger footprint relative to a benchmark. This can be used to identify opportunities for future footprint reduction. Sector allocation effects are determined using the 11 GICS Sector classifications, and the analysis has been completed based on the Carbon to Revenue Intensity (C/R). Both sets of emission scopes results are presented.

## Direct + First-Tier Indirect

Sector	Weight (Revenue)		Carbon intensity (C/R)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	5%	5%	49	49	-0.1%	0.0%	-0.1%
Consumer Discretionary	13%	13%	95	94	0.6%	0.0%	0.5%
Consumer Staples	11%	11%	263	258	0.0%	-0.1%	-0.1%
Energy	10%	10%	901	891	0.8%	-0.3%	0.5%
Financials	12%	11%	49	40	0.4%	-0.3%	0.1%
Health Care	13%	13%	38	37	-0.1%	0.0%	-0.2%
Industrials	13%	13%	218	221	0.0%	0.1%	0.2%
Information Technology	12%	13%	96	95	-0.5%	0.0%	-0.5%
Materials	7%	7%	1337	1326	-0.1%	-0.2%	-0.3%
Real Estate	1%	1%	126	127	0.0%	0.0%	0.0%
Utilities	3%	3%	2397	2336	0.0%	-0.5%	-0.5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>343</b>	<b>341</b>	<b>1%</b>	<b>-1%</b>	<b>0%</b>

## Scopes 1-2-3

Sector	Weight (Revenue)		Carbon intensity (C/R)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	5%	5%	169	168	-0.1%	0.0%	-0.1%
Consumer Discretionary	13%	13%	1286	1282	0.3%	0.0%	0.3%
Consumer Staples	11%	11%	822	829	0.1%	0.0%	0.1%
Energy	10%	10%	6418	6406	1.0%	-0.1%	1.0%
Financials	12%	11%	421	448	0.4%	0.2%	0.5%
Health Care	13%	13%	126	125	-0.1%	0.0%	-0.1%
Industrials	13%	13%	4082	4047	-0.1%	-0.2%	-0.3%
Information Technology	12%	13%	838	885	-0.4%	0.3%	-0.1%
Materials	7%	7%	3686	3717	0.0%	0.1%	0.1%
Real Estate	1%	1%	987	1015	0.0%	0.0%	0.0%
Utilities	3%	3%	3723	3744	0.0%	0.0%	0.0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>1984</b>	<b>2011</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>

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## Direct + First-Tier Indirect

Sector	Weight		Carbon intensity (C/V)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	12	12	-0.1%	0.0%	-0.1%
Consumer Discretionary	12%	11%	38	34	0.0%	-0.4%	-0.4%
Consumer Staples	7%	7%	134	126	0.0%	-0.5%	-0.5%
Energy	5%	5%	665	654	-0.3%	-0.5%	-0.2%
Financials	14%	14%	14	11	0.1%	-0.4%	-0.4%
Health Care	12%	12%	14	13	0.1%	-0.1%	0.0%
Industrials	10%	10%	95	93	0.0%	-0.2%	-0.2%
Information Technology	24%	24%	16	16	-0.3%	0.0%	-0.3%
Materials	5%	5%	712	677	0.0%	-1.4%	-1.5%
Real Estate	2%	2%	17	17	0.1%	0.0%	0.1%
Utilities	3%	3%	759	721	-0.2%	-0.9%	-1.1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>116</b>	<b>111</b>	<b>0%</b>	<b>-4%</b>	<b>-4%</b>

## Scopes 1-2-3

Sector	Weight		Carbon intensity (C/V)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	43	41	-0.1%	0.0%	-0.1%
Consumer Discretionary	12%	11%	510	460	0.0%	-0.9%	-0.9%
Consumer Staples	7%	7%	418	405	0.0%	-0.1%	-0.1%
Energy	5%	5%	4740	4698	0.4%	-0.3%	0.1%
Financials	14%	14%	125	123	0.1%	0.0%	0.0%
Health Care	12%	12%	47	45	0.1%	0.0%	0.0%
Industrials	10%	10%	1774	1692	-0.1%	-1.3%	-1.4%
Information Technology	24%	24%	141	150	-0.2%	0.3%	0.1%
Materials	5%	5%	1962	1898	0.0%	-0.4%	-0.5%
Real Estate	2%	2%	129	135	0.1%	0.0%	0.1%
Utilities	3%	3%	1178	1156	0.0%	-0.1%	-0.1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>24390</b>	<b>657</b>	<b>0%</b>	<b>-3%</b>	<b>-3%</b>

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## Direct + First-Tier Indirect

Sector	Weight		Carbon intensity (WACI)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	52	52	-0.1%	0.0%	-0.1%
Consumer Discretionary	12%	11%	121	122	0.0%	0.0%	0.0%
Consumer Staples	7%	7%	271	268	0.0%	-0.1%	-0.1%
Energy	5%	5%	946	933	0.2%	-0.2%	-0.1%
Financials	14%	14%	47	38	0.1%	-0.5%	-0.4%
Health Care	12%	12%	60	59	0.0%	0.0%	0.0%
Industrials	10%	10%	256	259	0.0%	0.1%	0.1%
Information Technology	24%	24%	77	78	-0.2%	0.1%	-0.1%
Materials	5%	5%	1389	1343	0.0%	-0.7%	-0.8%
Real Estate	2%	2%	147	149	0.0%	0.0%	0.1%
Utilities	3%	3%	2764	2730	-0.4%	-0.3%	-0.7%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>282</b>	<b>277</b>	<b>0%</b>	<b>-2%</b>	<b>-2%</b>

## Scopes 1-2-3

Sector	Weight		Carbon intensity (WACI)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	186	186	-0.1%	0.0%	-0.1%
Consumer Discretionary	12%	11%	874	860	0.0%	-0.1%	-0.1%
Consumer Staples	7%	7%	1061	1063	0.0%	0.0%	0.0%
Energy	5%	5%	6949	7187	0.2%	0.7%	0.9%
Financials	14%	14%	776	799	0.0%	0.2%	0.2%
Health Care	12%	12%	189	188	0.1%	0.0%	0.0%
Industrials	10%	10%	3832	3831	-0.1%	0.0%	-0.1%
Information Technology	24%	24%	1075	1320	-0.1%	3.5%	3.4%
Materials	5%	5%	3886	3843	0.0%	-0.1%	-0.1%
Real Estate	2%	2%	554	567	0.1%	0.0%	0.1%
Utilities	3%	3%	4118	4177	-0.1%	0.1%	0.0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>1596</b>	<b>1669</b>	<b>0%</b>	<b>4%</b>	<b>4%</b>

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The largest contributors to the portfolio's carbon intensity are shown below. While the first table shows the top contributors to the portfolio carbon to revenue intensity according to the two sets of emissions perimeters. The list has been determined on the basis of the Carbon to Revenue Intensity (C/R).

## Top C/R Contributors: Direct + First-Tier Indirect

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes D+FTI	Disclosure	Climate 100+
Exxon Mobil Corporation	Energy	0.7%	1046	5069	-3.73%	Partial Disclosure	Yes
Holcim Ltd	Materials	0.1%	6643	6814	-1.57%	Full Disclosure	Yes
Chevron Corporation	Energy	0.4%	985	7063	-1.43%	Partial Disclosure	Yes
Shell plc	Energy	0.4%	798	6488	-1.40%	Partial Disclosure	Yes
NTPC Limited	Utilities	0.0%	25627	25863	-1.28%	Full Disclosure	Yes
RWE Aktiengesellschaft	Utilities	0.1%	4644	5293	-1.08%	Partial Disclosure	Yes
ArcelorMittal S.A.	Materials	0.0%	2956	3422	-0.89%	Full Disclosure	Yes
The Southern Company	Utilities	0.1%	5105	6296	-0.86%	Full Disclosure	Yes
Vistra Corp.	Utilities	0.0%	11433	11788	-0.83%	Full Disclosure	Yes
Valero Energy Corporation	Energy	0.1%	933	4553	-0.79%	Partial Disclosure	Yes

## Top C/R Contributors: Scopes 1-2-3

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes 1-2-3	Disclosure	Climate 100+
Cummins Inc.	Industrials	0.1%	147	65988	-3.38%	Full Disclosure	Yes
Exxon Mobil Corporation	Energy	0.7%	1046	5069	-2.82%	Partial Disclosure	Yes
Coal India Limited	Energy	0.0%	4281	182728	-2.43%	Full Disclosure	Yes
Shell plc	Energy	0.4%	798	6488	-2.39%	Partial Disclosure	Yes
Chevron Corporation	Energy	0.4%	985	7063	-1.95%	Partial Disclosure	Yes
Siemens Energy AG	Industrials	0.0%	102	54592	-1.59%	Full Disclosure	No
Emerson Electric Co.	Industrials	0.1%	206	44000	-1.46%	Full Disclosure	No
Rio Tinto Group	Materials	0.2%	861	12359	-1.23%	Partial Disclosure	Yes
General Electric Company	Industrials	0.2%	90	9485	-1.09%	Full Disclosure	Yes
BHP Group Limited	Materials	0.2%	490	11846	-1.04%	Full Disclosure	Yes



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## Top C/V Contributors: Direct + First-Tier Indirect

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes D+FTI	Disclosure	Climate 100+
Exxon Mobil Corporation	Energy	0.7%	1046	5069	-4.78%	Partial Disclosure	Yes
Fair Isaac Corporation	Utilities	0.4%	798	6488	-2.08%	Modelled	No
FedEx Corporation	Real Estate	0.4%	985	7063	-1.75%	Full Disclosure	No
Fidelity National Financial, Inc.	Industrials	0.1%	6643	6814	-1.60%	Modelled	No
Fiserv, Inc.	Utilities	0.0%	25627	25863	-1.28%	Full Disclosure	No
FirstEnergy Corp.	Communication Service	0.1%	933	4553	-1.17%	Partial Disclosure	Yes
Ford Motor Company	Utilities	0.1%	4644	5293	-1.12%	Full Disclosure	Yes
Freeport-McMoRan Inc.	Materials	0.1%	1022	5540	-1.10%	Full Disclosure	No
General Electric Company	Consumer Discretionary	0.0%	2956	3422	-0.98%	Full Disclosure	Yes
General Mills, Inc.	Industrials	0.0%	1872	3190	-0.87%	Full Disclosure	No

## Top C/V Contributors: Scopes 1-2-3

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes 1-2-3	Disclosure	Climate 100+
Exxon Mobil Corporation	Energy	0.7%	1046	5069	-3.89%	Partial Disclosure	Yes
Cummins Inc.	Industrials	0.1%	147	65988	-3.42%	Full Disclosure	Yes
Shell plc	Energy	0.4%	798	6488	-3.07%	Partial Disclosure	Yes
Coal India Limited	Energy	0.0%	4281	182728	-2.45%	Full Disclosure	Yes
Chevron Corporation	Energy	0.4%	985	7063	-2.27%	Partial Disclosure	Yes
Siemens Energy AG	Industrials	0.0%	102	54592	-1.63%	Full Disclosure	No
Emerson Electric Co.	Industrials	0.1%	206	44000	-1.45%	Full Disclosure	No
Rio Tinto Group	Materials	0.2%	861	12359	-1.31%	Partial Disclosure	Yes
General Electric Company	Industrials	0.2%	90	9485	-1.19%	Full Disclosure	Yes
BP p.l.c.	Energy	0.2%	733	5471	-1.11%	Partial Disclosure	Yes

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## Top WACI Contributors: Direct + First-Tier Indirect

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes D+FTI	Disclosure	Climate 100+
NextEra Energy, Inc.	Utilities	0.2%	3565	3718	-2.78%	Partial Disclosure	Yes
The Southern Company	Utilities	0.1%	5105	6296	-2.08%	Full Disclosure	Yes
Exxon Mobil Corporation	Energy	0.7%	1046	5069	-1.89%	Partial Disclosure	Yes
Duke Energy Corporation	Utilities	0.1%	4680	5461	-1.71%	Full Disclosure	Yes
Linde plc	Materials	0.3%	1774	2558	-1.58%	Full Disclosure	No
NTPC Limited	Utilities	0.0%	25627	25863	-1.52%	Full Disclosure	Yes
Holcim Ltd	Materials	0.1%	6643	6814	-1.18%	Full Disclosure	Yes
Air Products and Chemicals, Inc.	Materials	0.1%	3284	4113	-1.12%	Partial Disclosure	No
American Electric Power Company,	Utilities	0.1%	4777	4972	-1.09%	Full Disclosure	Yes
Chevron Corporation	Energy	0.4%	985	7063	-1.08%	Partial Disclosure	Yes

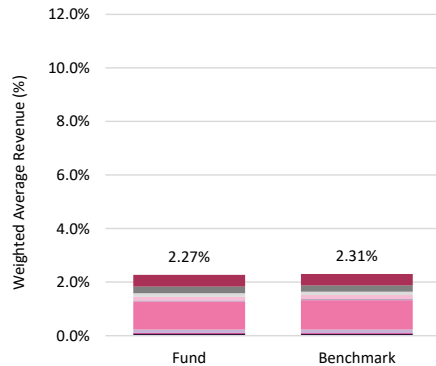
## Top WACI: Contributors Scopes 1-2-3

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes 1-2-3	Disclosure	Climate 100+
NVIDIA Corporation	Information Technology	1.6%	67	5532	-4.02%	Full Disclosure	No
Banco Bradesco S.A.	Financials	0.0%	9	118352	-2.41%	Partial Disclosure	No
Cummins Inc.	Industrials	0.1%	147	65988	-2.21%	Full Disclosure	Yes
Emerson Electric Co.	Industrials	0.1%	206	44000	-2.17%	Full Disclosure	No
Exxon Mobil Corporation	Energy	0.7%	1046	5069	-1.52%	Partial Disclosure	Yes
Chevron Corporation	Energy	0.4%	985	7063	-1.49%	Partial Disclosure	Yes
Trane Technologies plc	Industrials	0.1%	166	35622	-1.48%	Full Disclosure	Yes
BHP Group Limited	Materials	0.2%	490	11846	-1.46%	Full Disclosure	Yes
Broadcom Inc.	Information Technology	0.6%	81	5567	-1.41%	Full Disclosure	No
Rio Tinto Group	Materials	0.2%	861	12359	-1.09%	Partial Disclosure	Yes

## Stranded Assets

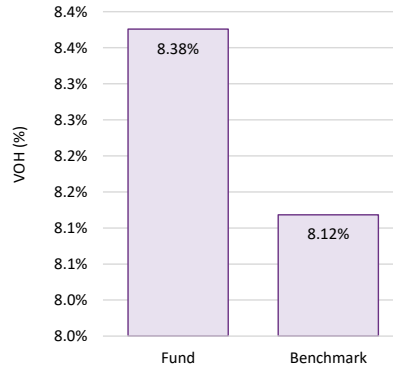
The reduction in greenhouse gas emissions implies movement away from fossil fuel energy and related physical assets. London CIV measures exposure to such assets by calculating the combined value of holdings and weighted revenue exposure of companies with business activities in either fossil fuel extraction or fossil fuel energy generation industries. This helps to identify potential stranded assets that may become more apparent as economies move towards a low carbon economy.

### Revenue Weighted Fossil Fuel Exposure



- Bituminous coal and lignite surface mining
- Tar sands extraction
- Drilling oil and gas wells
- Support activities for oil and gas operations
- Petroleum Power Generation

### Value of Holdings Fossil Fuel Exposure



- Bituminous coal underground mining
- Crude petroleum and natural gas extraction
- Natural gas liquid extraction
- Coal Power Generation
- Natural Gas Power Generation

### Fossil fuel Exposure Metrics

#### 1. Revenue Weighted Exposure

Weighted average exposure to the revenues derived from fossil fuel activities.

$$Exposure = \sum_i^n [Revenue\%_{activity_{ref,i}} * weight_i]$$

#### 2. Value of Holdings Exposure

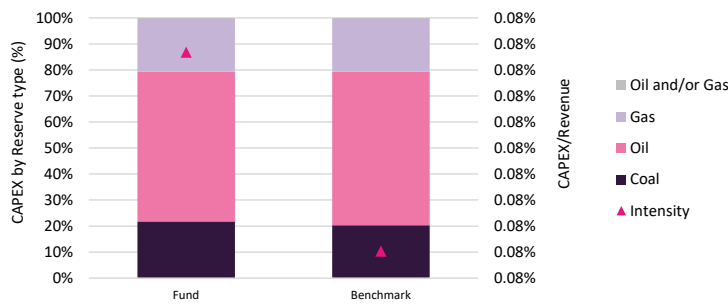
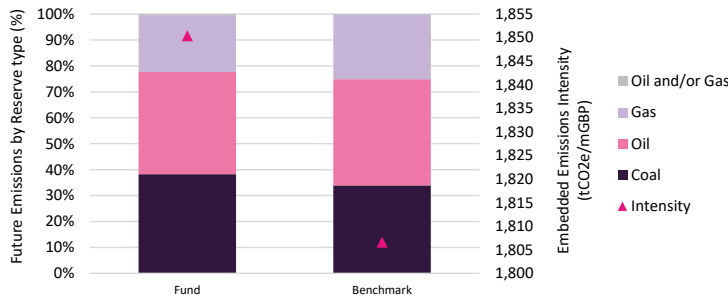
Combined weight of companies in the fund deriving any revenues from fossil fuel related activities.

$$Exposure = \sum_i^n [Weight_i]$$

**Together, these metrics provide a useful range of a fund's potential exposure to stranded assets.**

London CIV also measures 'Stranded Assets' exposure by estimating the carbon emissions embedded within the fossil fuel reserves of companies and their capital expenditures towards fossil-fuel related activities.

**Future Emissions and CAPEX by Reserve Type**



**Understanding Stranded Assets**

The total potential emissions of existing known fossil fuel reserves far vastly exceed the global carbon budget that will limit global temperatures to 1.5°C of warming above pre-industrial levels. If this is the case, the market values of companies holding reserves may be overstated because they are based in part on the present value of these reserves assuming that they can be fully utilized. Industry experts may therefore refer to these assets as 'Stranded Assets'.

The CAPEX/revenue ratio shows how aggressively the companies may be re-investing revenues back into fossil assets. A high ratio potentially indicates that companies within the fund are investing heavily. In the long term, this could deteriorate their ability to generate new revenues if these assets become stranded.

1 Carbon Footprint

2 Stranded Assets

3 Net-Zero Alignment

4 Disclaimer

The tables below show the largest contributors towards each fund's (1) Weighted Average Fossil Fuel Revenues; and (2) Future emissions. The company level fossil-fuel related exposure and CAPEX/Revenue ratio are also shown in the adjacent columns.

**Top Contributors - Weighted Average Fossil Fuel Revenues**

Name	Sector	Weight %	Future emissions (tCO2e)	CAPEX/Revenue	Fossil Fuel Revenue	Weighted Fossil Fuel Revenue	Climate 100+
ConocoPhillips	Energy	0.20%	2281.83	11%	100%	0.200%	Yes
Chevron Corporation	Energy	0.43%	2222.19	0%	28%	0.122%	Yes
NextEra Energy, Inc.	Utilities	0.24%	0.00	0%	46%	0.110%	Yes
EOG Resources, Inc.	Energy	0.11%	1465.26	19%	100%	0.106%	No
Canadian Natural Resources Limited	Energy	0.10%	5758.34	24%	100%	0.097%	Yes
Shell plc	Energy	0.35%	1763.36	7%	24%	0.083%	Yes
Pioneer Natural Resources Company	Energy	0.08%	798.47	18%	100%	0.077%	No
Schlumberger Limited	Energy	0.11%	0.00	0%	57%	0.063%	No
Woodside Energy Group Ltd	Energy	0.06%	97.29	7%	99%	0.062%	Yes
Exxon Mobil Corporation	Energy	0.69%	3700.50	4%	8%	0.055%	Yes

**Top Contributors - Future Emissions**

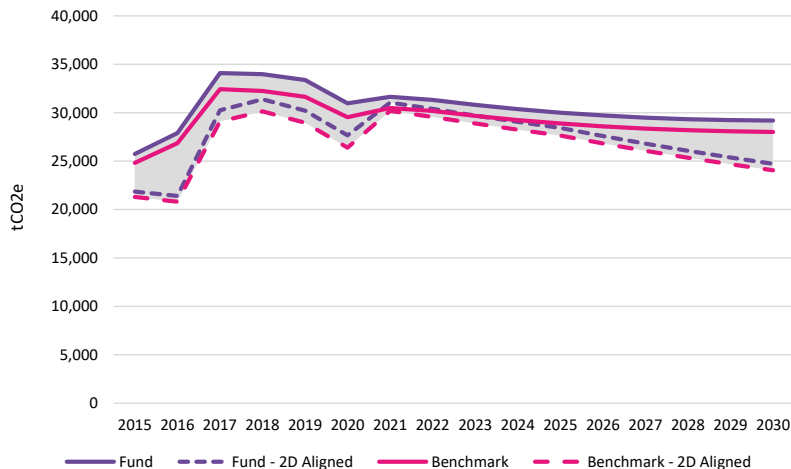
Name	Sector	Weight %	Future emissions (tCO2e)	CAPEX/Revenue	Fossil Fuel Revenue	Weighted Fossil Fuel Revenue	Climate 100+
Canadian Natural Resources Limited	Energy	0.10%	5758.34	24%	100%	0.097%	Yes
Exxon Mobil Corporation	Energy	0.69%	3700.50	4%	8%	0.055%	Yes
Glencore Plc	Materials	0.12%	5783.74	0%	5%	0.006%	Yes
BHP Group Limited	Materials	0.23%	5997.94	1%	15%	0.034%	Yes
China Shenhua Energy Company Limited	Energy	0.02%	31683.55	6%	69%	0.013%	Yes
BP p.l.c.	Energy	0.17%	6433.39	6%	30%	0.052%	Yes
Exxaro Resources Limited	Energy	0.00%	6798.92	7%	96%	0.003%	No
TotalEnergies SE	Energy	0.21%	4323.02	4%	12%	0.025%	Yes
ConocoPhillips	Energy	0.20%	2281.83	11%	100%	0.200%	Yes
Whitehaven Coal Limited	Energy	0.01%	1675.28	4%	88%	0.004%	No

## Net-Zero Alignment

The Paris Agreement calls for coordinated efforts to ensure that global temperatures rise well below 2°C. As such, a growing number of financial institutions, including the world’s largest investment managers are now making commitments to set Paris-aligned targets. The following assessment tracks fund GHG emission trajectories against the goal of limiting global warming to below 2°C.

### Projected GHG Emissions Trajectories

The chart below examines the adequacy of GHG emissions reductions over time in meeting a 2°C carbon budget. It tracks past and future company emissions levels.



**Why Net-Zero ?**

The Intergovernmental Panel on Climate Change (IPCC) has advised that limiting global temperature rise to 1.5-degree Celsius above pre-industrial levels would substantially reduce the impacts of climate change.

Scenarios assessed by the IPCC have determined that to meet this 1.5°C target, global carbon dioxide emissions would need to reach 'Net-zero' by 2050. Meeting a 2°C target requires carbon emissions to reach 'Net-Zero' by 2070.

The table below displays the fund and benchmark performance against their respective 2°C carbon budget.

	Fund	Benchmark
Coverage Rate	100%	99.28%
Tonnes Carbon (Under)/Over	47,339	41,163
Carbon/mInvested (Under)/Over	117	101
Percent of Total (Under)/Over	9%	8%

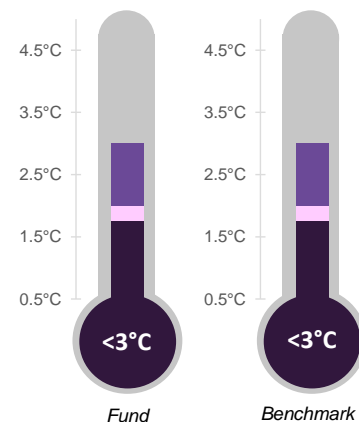
Companies are evaluated on the basis of their alignment with sectoral decarbonisation pathways. This assessment enables the calculation of an implicit temperature (°C) at company, sub-industry, and fund level based on performance over the period assessed.

Sub-Industry Carbon Budget Assessment

	Temperature (°C)		2°C Emissions Gap (tCO2e)		Well below* 2°C Emissions Gap (tCO2e)	
	Fund	Benchmark	Fund	Benchmark	Fund	Benchmark
	<b>SDA</b>					
Power Generation	<2°C	<2°C	- 9,462	- 13,526	27,843	21,498
Cement	<2°C	<2°C	- 2,493	- 2,425	3,761	3,418
Steel	>2.7°C	>2.7°C	4,267	3,854	8,911	8,019
Airlines	<2.7°C	<2.7°C	104	178	723	758
Aluminum	<1.75°C	<1.75°C	-	- 778	-	- 780
<b>GEVA</b>						
Communication Services	<3°C	<4°C	559	590	723	755
Consumer Discretionary	<1.5°C	<1.5°C	- 2,239	- 2,793	- 1,291	- 1,852
Consumer Staples	<4°C	<4°C	2,674	2,553	3,356	3,206
Energy	>5°C	>5°C	52,326	50,614	56,004	54,413
Financials	<3°C	<3°C	96	50	179	134
Health Care	<1.5°C	<1.5°C	- 359	- 425	- 56	- 132
Industrials	<1.5°C	<1.5°C	- 4,217	- 4,523	- 2,354	- 2,672
Information Technology	<1.5°C	<1.5°C	- 2,619	- 2,865	- 1,845	- 2,063
Materials	<3°C	<3°C	8,679	10,493	13,474	14,997
Real Estate	<1.5°C	<1.5°C	- 174	- 184	- 56	- 69
Utilities	<3°C	<3°C	197	351	2,850	2,981

\*1.75°C for SDA Sub-industries, 1.5°C for GEVA Sub-industries

Implicit Temperatures (°C)



Net-Zero Alignment - Best Performers

Name	Weight	Temp. (°C)	Contribution 2°C (tCO2e)
RWE Aktiengesellschaft	0.1%	1.5-2°C	- 4,325
China Shenhua Energy Company Limite	0.0%	1.5-2°C	- 2,775
ENGIE SA	0.0%	1.5-2°C	- 2,674
Amazon.com, Inc.	1.9%	1.5-2°C	- 2,573
Yang Ming Marine Transport Corporator	0.0%	1.5-2°C	- 2,563

Net-Zero Alignment - Worst Performers

Name	Weight	Temp. (°C)	Contribution 2°C (tCO2e)
Exxon Mobil Corporation	0.7%	>5°C	14,883
Chevron Corporation	0.4%	>5°C	6,635
AGL Energy Limited	0.0%	>5°C	3,443
Shell plc	0.4%	>5°C	3,264
Phillips 66	0.1%	>5°C	3,077

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