



Green Investment Partners

Impact Report 2024



For the year ending December 2023

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Signatory of:

 **PRI** Principles for
Responsible
Investment

UKSIF
UK Sustainable Investment
and Finance Association



**SUSTAINABLE
DEVELOPMENT GOALS**

Executive Summary

The impetus to have a positive impact through sustainable investments has never been so important. Growth broadly continued in most cleantech areas throughout 2023 and into 2024; in BNEF's latest Global PV Market Outlook the solar industry is expected to have installed about 600GW in 2024, whilst solar module prices have fallen 22% over the year to the end of Nov-24. Electric vehicle sales are expected to rise 26% year-on-year, thanks to strong gains in China and South Korea, which offset a single digit decline in Europe. In China, electric vehicles make up almost half of vehicle sales and are expected to reach 11 million sales in 2024, up over 35% since 2023, according to BNEF's predictions. Global energy storage saw record additions in 2024, with BNEF expecting 169 GWh of additions, up 76% in GWh from 2023. Most recent projections expect China's emissions to fall in 2024 after record growth in clean energy¹. Not only does sustainable investing play a crucial role in the transition to decarbonise the economy, but we also see this as an attractive long-term investment opportunity.

Our mission at Green Investment Partners (GIP) is to achieve long-term capital appreciation by investing in companies that contribute to a reduction in global greenhouse gas (GHG) emissions. In 2023, it was estimated:

- That a €1m investment in the portfolio emitted 346 tCO₂e across scope 1, 2 and 3 (annualised) and avoided 848 tCO₂e GHG emissions (annualised).
- The portfolio's weighted average (scope 1 and 2) carbon intensity was 48% less than that of the S&P Global Clean Energy Index.²
- That according to BNEF, 77% of the companies in the portfolio generate most of their revenue (50-100%) from clean energy activities.
- Of the portfolio companies, 33% had set SBTi targets or commitments at 29-Dec-23, a significant increase from 26% in 2022 and 24% in 2021, the baseline year.

Figure 1: Impact highlights

Indicator	Unit	2023
Scope 1 GHG emissions per €1m invested (annualised)	tCO ₂ e	7
Scope 2 GHG emissions per €1m invested (annualised)	tCO ₂ e	3
Scope 3 GHG emissions per €1m invested (annualised)	tCO ₂ e	337
Avoided GHG emissions per €1m invested (annualised)	tCO ₂ e	848
Renewable energy generated ³	GWh	90,310

Source: Green Investment Partners, Bloomberg

¹ <https://www.carbonbrief.org/analysis-chinas-emissions-set-to-fall-in-2024-after-record-growth-in-clean-energy/>

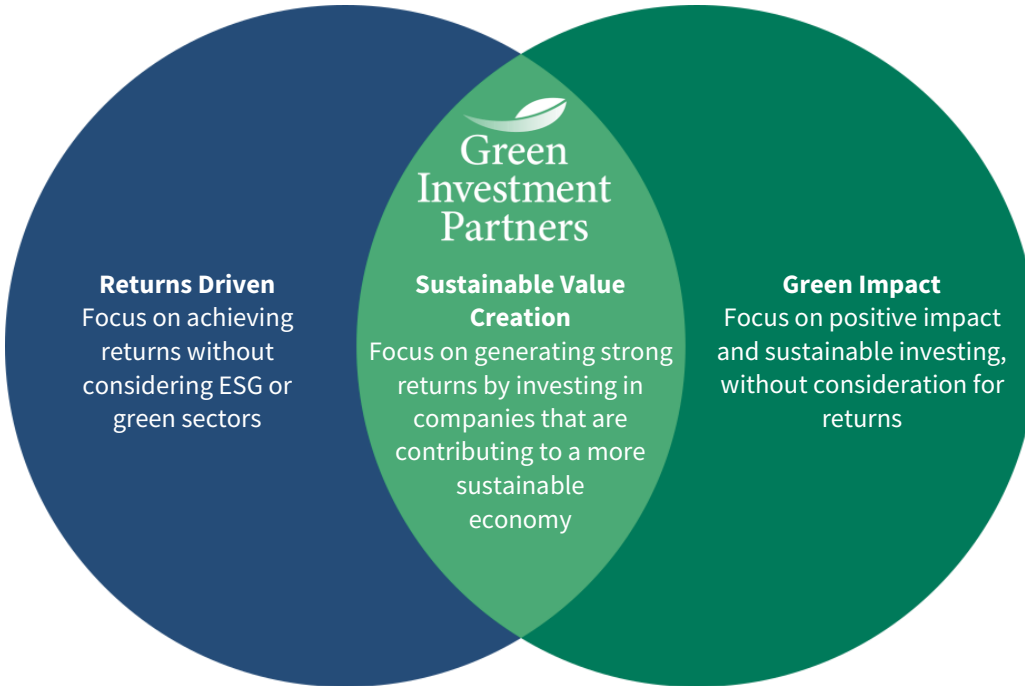
² Weighted average carbon intensity does not measure a company's total carbon emissions, it looks at scope 1 and 2 and normalises for company size – a large company with large carbon emissions, in absolute terms, may have a lower weighted average carbon intensity than a smaller company that pollutes less, in absolute terms, but emits more carbon per million of sales. Please note that for weighted average carbon intensity, the GIP portfolio emissions have not been annualised and are shown per million USD of sales to aid comparability.

³ This value represents the total renewable energy generated over fiscal year 2023 by the entire companies held within the portfolio as of 29-Dec-23. Estimated from 2023 company reporting, where available, latest available data or internal estimates. 9 companies reported out of 18.

Responsible Investing

We treat our investors as long-term partners and invest alongside them. We invest responsibly by combining both financial and sustainability factors when evaluating companies.

Figure 2: Our mission is to create sustainable value by generating returns and achieving a positive impact



Source: Green Investment Partners

We apply a sustainable criteria via top-down sector research and bottom-up qualitative and quantitative analysis. We select a concentrated portfolio of companies from a green investable universe of over 500 companies from across renewable energy, electrification and efficiency sectors. Figure 3 lays out the portfolio composition by industry as at the end of the reporting period, consisting of companies that generate more than 50% gross revenues or operating income from green sector activities. We do not invest in companies that have a certain level of exposure to, or ties with, sectors including thermal coal extraction and generation, oil exploration, drilling, refining and production, controversial weapons (e.g. nuclear, cluster munitions, biological-chemical, landmine, or incendiary weapons), civilian firearms, tobacco, casinos, and gambling. We may also exclude a particular company, sector or country on environmental grounds or if they are found to breach any of the social principles of the UN Global Compact⁴. During the reporting period we have engaged directly with management teams on environment and social topics, based on our responsible investing philosophy. We will divest if a company's activities no longer align with our green sector criteria. Please refer to our Responsible Investing Policy⁵ for further details on our inclusion and exclusion criteria, reporting methodologies, and active ownership approach.

⁴ [The Ten Principles of the UN Global Compact \(2000\) United Nations](#)

⁵ [Green Investment Partners' Responsible Investing Policy \(2023\)](#)

Figure 3: The portfolio by industry as at 29-Dec-23

Solar	29.5%
Wind	22.8%
Mobility	15.0%
Lighting	9.0%
Waste	8.9%
Energy Storage	5.9%
Smart Grid	2.8%
Cash	6.1%

Source: Green Investment Partners, SEI

Whilst impact disclosures and reporting are becoming more common, it is still in its infancy. There remains no global framework, which means that companies and asset managers are open to develop their own approach, leading to inconsistencies. As a result, we try to analyse the impact of our portfolio transparently with the data and resources available to us. Starting in 2022 we published sustainability-related disclosures⁶ and a Principle Adverse Impact Statement⁷ in line with the reporting requirements as per Article 9 of the European Union's Sustainable Finance Directive Regulation (SFDR). We continue to improve our impact reporting framework and methodology each year, as data and reporting requirements become increasingly standardised, accessible and reliable over time.

Industry Collaboration

In addition to our impact reporting, GIP is an active signatory of the UN Principles for Responsible Investment (UN PRI) and the Net Zero Asset Managers Initiative (NZAMi). We are also a member of the UK Sustainable Investment and Finance Association (UKSIF)⁸, an association representing 300+ members managing over £19 trillion in assets under management.

We welcome questions and input from current and prospective investors on our impact reporting. If you wish to get in touch with us, please contact the team at ir@greeninvestp.com.

Fabian Leonhardt

Co-founder & Portfolio Manager

Joshua Cole

Co-founder & Portfolio Manager

⁶ [Sustainability-Related Disclosures \(2023\) Green Investment Partners](#)

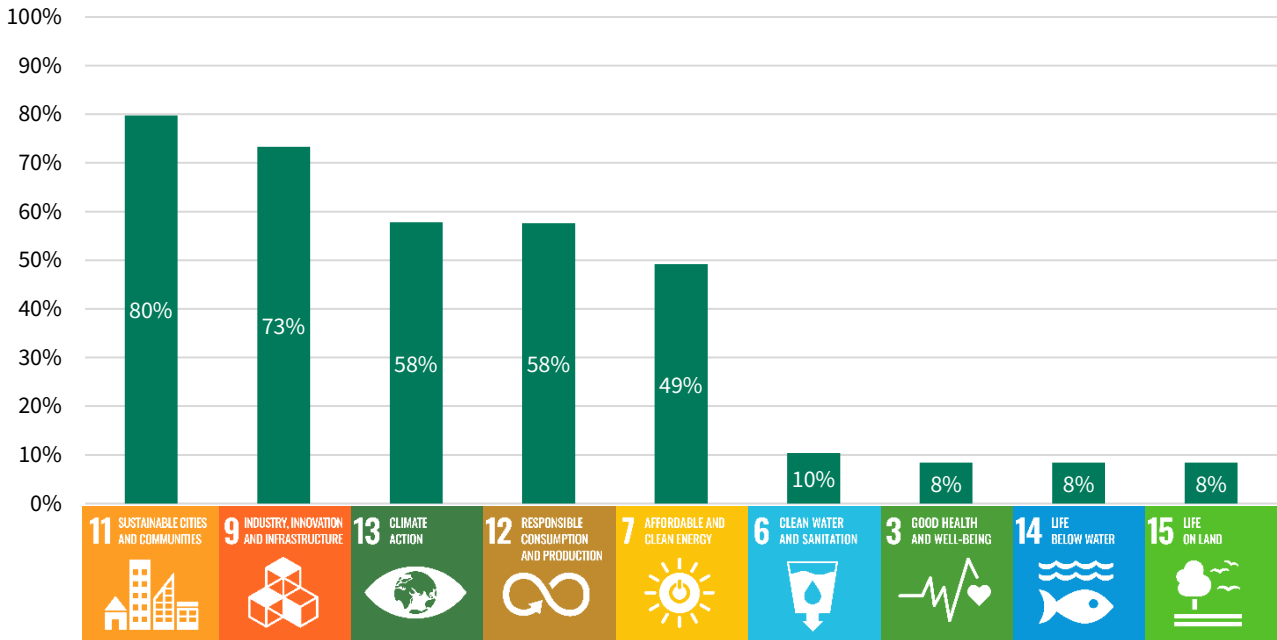
⁷ [Principle Adverse Impact Statement \(2023\) Green Investment Partners](#)

⁸ [UK Sustainable Investment & Finance Association \(UKSIF\)](#)

United Nations Sustainable Development Goals (SDGs)

We believe the companies in which we invest contribute to the progression of the United Nations SDGs. Figure 4 shows that the business activities of the portfolio primarily contribute towards 5 of the 17 SDGs. These are affordable and clean energy (SDG7), industry, innovation and infrastructure (SDG9), sustainable cities and communities (SDG11), responsible consumption and production (SDG12) and climate action (SDG13). Several companies in the portfolio also align their operations directly and/or indirectly with further SDG targets, such as clean water and sanitation and good health and well-being.

Figure 4: Mapping the portfolio to the UN SDGs



Source: Bloomberg. Positive SDG Impact provides an average percentage of total revenue generated by the company that has a potential positive impact across all 17 United Nations (UN) Sustainable Development Goals (SDG). Potential impact denotes that the company operates in sectors with SDG impact while not necessarily itself impacting the SDG.

To help assess how sustainable the portfolio was, Figure 5 looks at additional metrics:

- Sustainable revenues were estimated to be 68%, predominantly coming from renewable energy.
- According to BNEF estimates, 77% of the companies in the portfolio generate most of their revenue (50-100%) from clean energy activities.
- No company's revenue was as a result of controversial revenue (such as fossil fuels or mining operations), as estimated by Bloomberg.

Figure 5: Sustainable revenues, BNEF clean energy activities and controversial Revenue

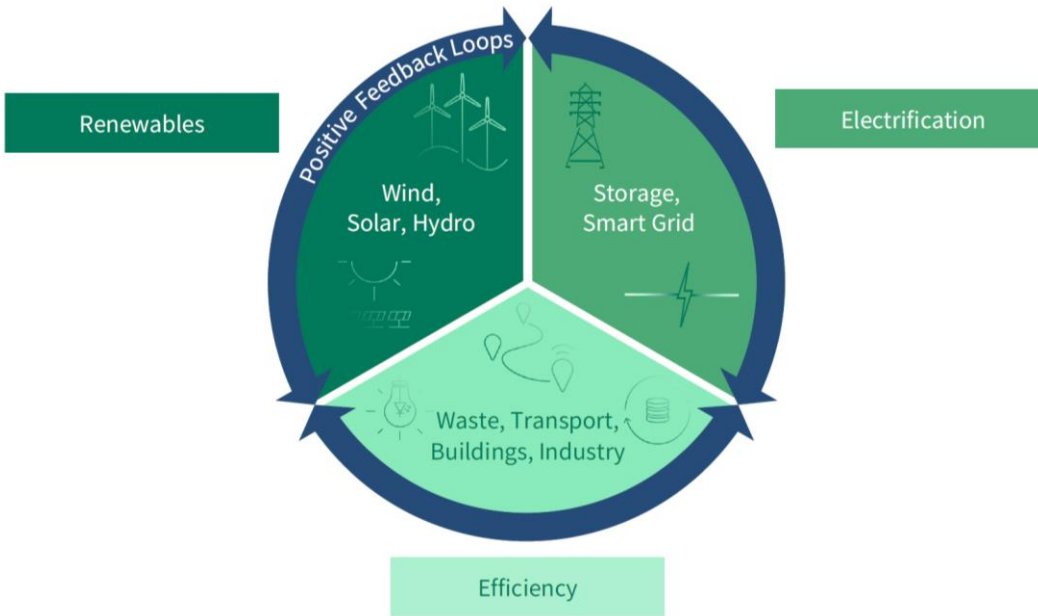
Sustainable Revenue	%	Controversial Revenue	%
Renewable Energy	58%	Fossil Fuels (Oil, Gas & Coal)	0%
Electric Vehicles	10%	Plastics	0%
		Mining Operations	0%
BNEF Clean Energy Activities	%	Nuclear Energy	0%
A1 Main Driver (50-100%)	77%	Controversial Business Involvement	0%
A5 No Exposure (0%)	23%	Other Emissions	0%

Source: Bloomberg

Three Drivers of the Sustainable Energy Transition

As the sustainable energy economy matures, almost every country, sector and company globally will be affected. Currently there are three main drivers of the sustainable energy transition: renewable energy, electrification and efficiency. New sectors and companies will be added over time, and sometimes removed, however the overarching drivers of the sustainable energy economy are unlikely to fundamentally change.

Figure 6: Sustainable energy transition sectors

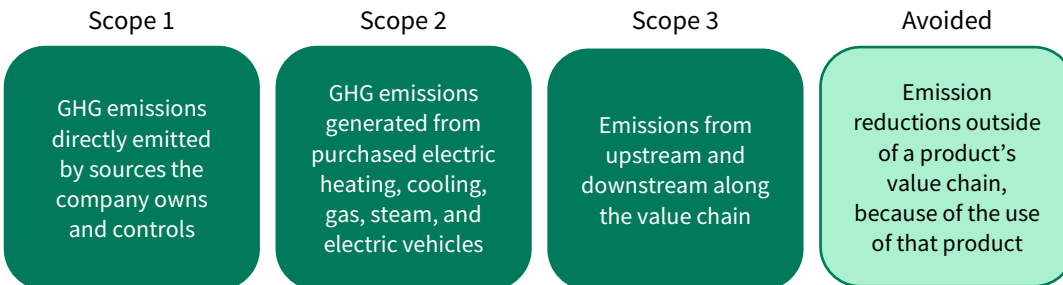


Source: Green Investment Partners

Measuring Greenhouse Gas (GHG) Emissions

A portfolio’s contribution to the reduction in GHG emissions can be calculated by estimating the GHG emissions from the investee companies’ activity, less GHG emissions that would occur in the absence of the investee companies’ products or services. This indicator is used in view of achieving the long-term global warming objectives of the Paris Agreement.

Figure 7: Definitions of emission scopes as defined by the Greenhouse Gas Protocol⁹



Source: Green Investment Partners

The availability, comparability and accuracy of this data is expected to improve as regulatory reporting standards are established and made compulsory across more sectors and regions. In this current report we rely on self-reported emissions data, third-party estimates and internal estimates, of which we have not had independently verified. We have estimated the emissions on a best-efforts basis, please see Appendix: Emissions Methodology for a further discussion on the methods used, limitations and improvements.

⁹ [Overview of GHG Protocol scopes and emissions across the value chain](#)

In 2023, we estimate that a €1m of investment in the portfolio emitted 346 tCO₂e across scope 1, 2 and 3 (annualised) and avoided 848 tCO₂e GHG emissions (annualised), through activities such as developing wind farms, manufacturing solar panels, and selling electric mopeds. We have estimated emissions on an annual basis, for both emitted and avoided, by scaling the emissions by the estimated asset life, where appropriate. For example, if a company manufactures wind turbines with a 30-year asset life, we look at avoided emissions over a single year. To be consistent we have also annualised scope 1, 2 and 3 emissions emitted during that year by dividing the non-annualised emissions by the asset life. In addition, the companies we have invested in generated over 90,000 GWh of renewable electricity¹⁰.

Figure 8: Estimated 2023 annualised GHG emissions both released and avoided of the Green Investment Partners' portfolio (tCO₂e per €1m invested, annualised)

Carbon to Value Invested Emissions (Annualised)	tCO ₂ e/€1m Invested			
	Scope 1	Scope 2	Scope 3	Avoided
Green Investment Partners	7	3	337	848

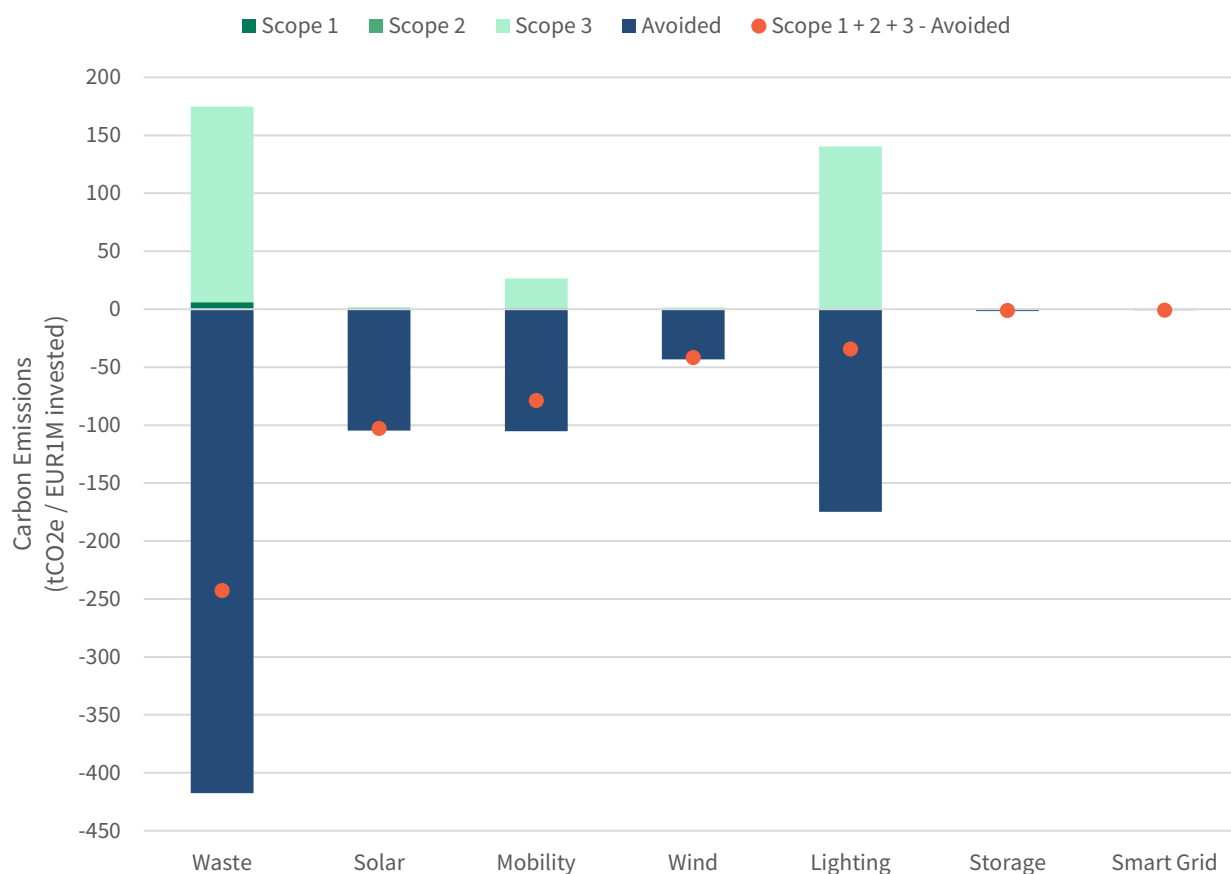
Source: Green Investment Partners, Bloomberg

¹⁰ Total renewable energy generated over fiscal year 2023 by the entire companies held within the portfolio as of 29-Dec-23. Estimated from 2023 company reporting, where available, latest available data or internal estimates. 9 companies reported out of 18.

According to the Carbon Disclosure Project (CDP), most of a company’s emissions fall under scope 3, stating that supply chain emissions are on average 11.4x higher than operational emissions.¹¹ This is reflected in the GIP portfolio whereby scope 3 emissions tend to be significantly higher than direct emissions across all sectors and are estimated to account for 97% of total emissions. Scope 3 may include emissions from the production and consumption of raw materials and other commodities required in the production process, of which the company may have less control over compared to direct emissions.

Figure 9 displays the ‘Carbon to Value Invested’ by sectors. We estimate the energy-intensive waste sector to have relatively higher scope 1, 2 and 3 emissions than other sectors, however the estimated avoided emissions are also greater. There is an interconnection between different sectors and emissions, for example as grid electricity generation becomes cleaner with more renewables, the scope 3 emissions of electric vehicles should reduce as users power them with cleaner energy.

Figure 9: Estimated 2023 GHG emissions both emitted and avoided of the Green Investment Partners’ portfolio by sector (tCO2e per €1m invested, annualised)

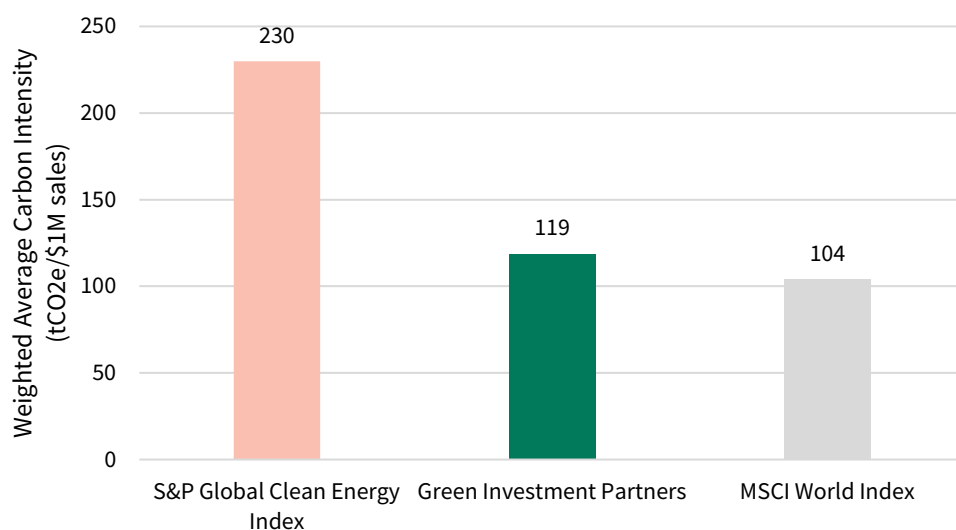


Source: Green Investment Partners, Bloomberg

¹¹ [CDP Global Supply Chain Report \(2020\): Transparency to Transformation](#)

Figure 10 shows the estimated weighted average carbon intensity (scope 1 and 2 only) in USD and non-annualised to help compare between the portfolio and the indices reported data. The MSCI World Index is a global large- and mid-cap equity index across developed markets.¹² The S&P Global Clean Energy Index measures the performance of companies in global clean energy-related business from both developed and emerging markets.¹³ The Green Investment Partners portfolio had an estimated weighted average (scope 1 and 2) carbon intensity 48% less than that of the S&P Global Clean Energy Index. Weighted average carbon intensity does not measure a company’s total carbon emissions, it looks at scope 1 and 2 and normalises for company size – a large company with large carbon emissions, in absolute terms, may have a lower weighted average carbon intensity than a smaller company that pollutes less, in absolute terms, but emits more carbon per million of sales. Please note that for weighted average carbon intensity, the GIP portfolio emissions have not been annualised and are shown per million USD of sales to aid comparability.

Figure 10: Estimated weighted average (scope 1 and 2) carbon intensity of the portfolio and indices as at 29-Dec-23¹⁴



Source: Green Investment Partners, Bloomberg

Climate Targets

The World Meteorological Organisation (WMO) predicted in June 2024 that there is an 80% likelihood that the annual average global temperature will temporarily exceed 1.5°C above pre-industrial levels for at least one of the next five years.¹⁵ Highlighting how close we are to exceeding the aims of the Paris Agreement on climate change. As signatories of the NZAMI, we set a target in November 2022 for 100% of portfolio companies to be setting Science-Based Target Initiative (SBTi) targets or commitments by 2030. We view the SBTi’s framework as the current highest standard for tracking the alignment of GHG emissions reduction targets of corporations to the goals of the Paris Climate Agreement – limiting global warming to 1.5°C above pre-industrial levels or well-below 2°C. To set science-based targets, companies must follow a rigorous process to develop an emissions reduction target in line with the SBTi’s criteria and submit the target for validation. A 2021 progress report indicated that the typical company with science-based targets has reduced its direct (scope 1 and 2) emissions at a linear rate of 6.4% per year, exceeding the 4.2% rate needed to limit warming to 1.5°C, according to pathways derived from climate scenarios. Analysis of 338 companies with approved science-based targets found they have reduced their combined emissions by 25% since 2015.¹⁶

¹² <https://www.msci.com/index-carbon-footprint-metrics>

¹³ See ‘Factsheet’: <https://www.spglobal.com/spdji/en/indices/esg/sp-global-clean-energy-index/#overview>

¹⁴ The iShares Global Clean Energy ETF is used as a proxy for the S&P Clean Energy Index as of 21-Sep-23 and the iShares MSCI World ETF is used as a proxy for the MSCI World Index as of the 21-Sep-23

¹⁵ [Global temperature is likely to exceed 1.5°C above pre-industrial level temporarily in next 5 years](#)

¹⁶ [From ambition to impact: How companies are reducing emissions at scale with science-based targets \(2021\) Science Based Targets](#)

Figure 11 shows that 33% of portfolio companies had set SBTi targets or commitments at 29-Dec-23. This is a significant increase from 26% in 2022 and 24% in 2021, the baseline year. We continue to monitor each company's progress towards their environmental targets comparatively year-on-year.

Figure 11: Number of portfolio companies with SBTi near-term or Net-Zero targets and commitments at 29-Dec-23

Target Set	5
Committed	1
No Target Set or Committed	12
% Portfolio Companies with Target Set or Committed	33%



Source: Green Investment Partners, Bloomberg, SBTi

We are pleased to see an increase of companies setting Net Zero and emissions reduction targets in line with the SBTi's requirements as their overarching emissions goal. According to BNEF, a global annual investment of \$7 trillion into green technologies such as electric vehicles and renewable energy could be required for a successful Net Zero transition by 2050.¹⁷

¹⁷ [The \\$7 Trillion a Year Needed to Hit Net-Zero Goal \(2022\) BloombergNEF](#)

Biodiversity and Nature

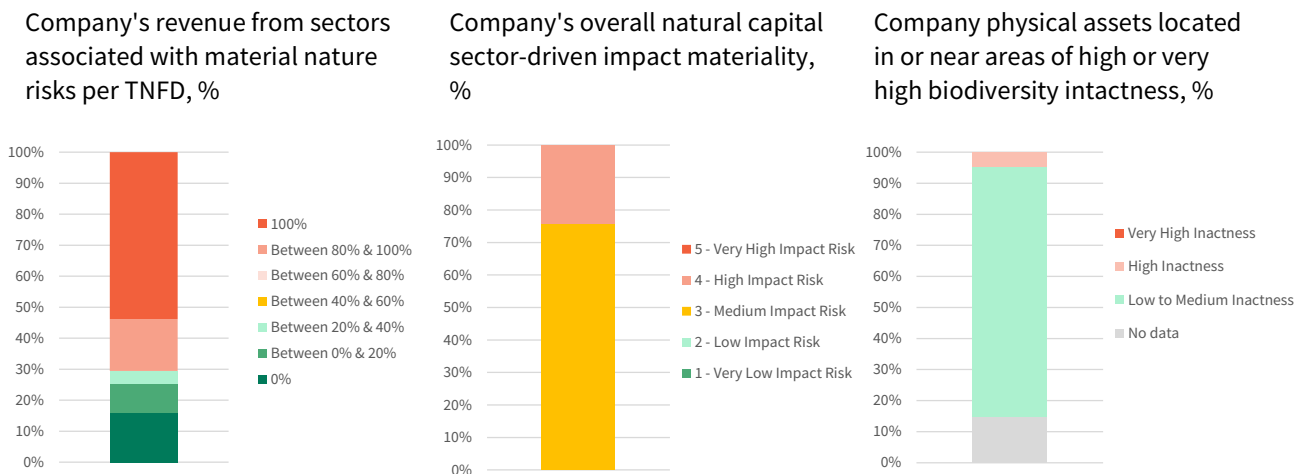
The 2024 Living Planet Report highlighted a 73% decline in the average size of wildlife populations between 1970 and 2020.¹⁸ As the earth’s climate and ecology are intertwined, we understand that the sustainable energy transition cannot be carried out at the expense of nature. It is important to work towards monitoring investee companies’ impact on local biodiversity and wider ecological systems.

Figure 12 assesses the portfolio based on three different metrics which look at a company’s exposure to high nature risk sectors or pristine areas:

- **Material Nature Risk Sectors:** Estimates the percentage of total revenue generated by the company that is derived from business activities with material nature related dependencies and impacts as defined by the Taskforce on Nature-related Financial Disclosures (TNFD).
- **Overall Natural Capital Impact Materiality:** Provides the company's overall natural capital sector-driven impact materiality, based on the company's Bloomberg Industry Classification System (BICS) revenue segments. Values range from 1 and 5, where 1 represents very low impact risk and 5 represents very high impact risk.
- **Biodiversity Intactness:** Identifying if any of the company's physical assets captured by Bloomberg are located in areas of high or very high biodiversity intactness according to the United Kingdom (UK) Natural History Museum's (NHM) Biodiversity Intactness Index (BII) geospatial data layer. BII estimates the percentage of an ecosystem’s natural biodiversity that can still be found compared to a pristine baseline. The maximum intactness value means that all the naturally present species are still as abundant as they were.

Figure 12 estimates indicate the portfolio companies operate largely in sectors associated with material nature risks as per the TNFD. No company indicated an overall very high natural capital impact risk, but most did indicate either medium or high impact risks. No company was highlighted to be in an area of very high biodiversity intactness.

Figure 12: Estimating the portfolio’s exposure to high nature risk sectors or pristine areas at 29-Dec-23



Source: Bloomberg

¹⁸ <https://livingplanet.panda.org/>

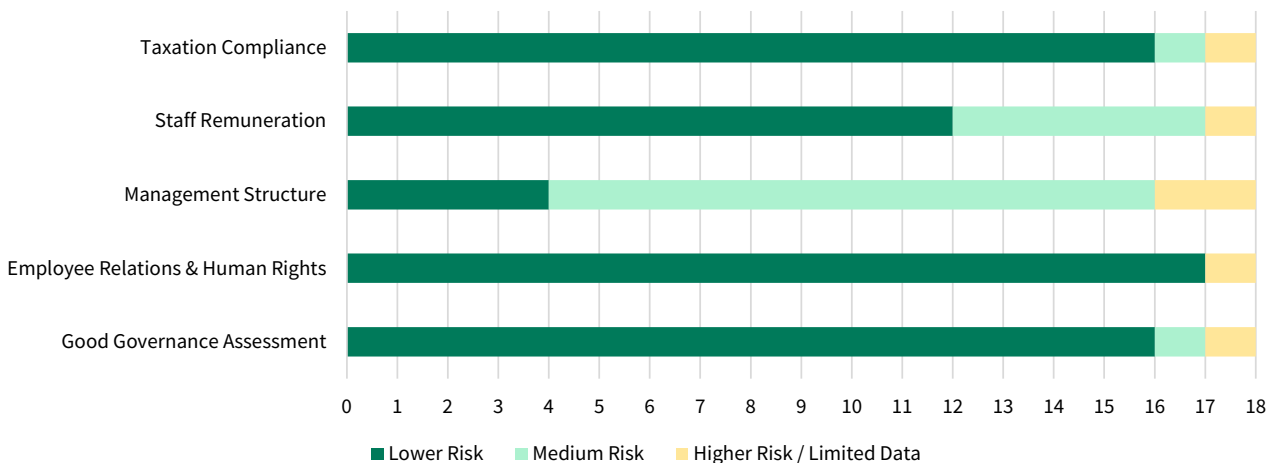
Social and Governance Risk

As active shareholders in global companies, we consider social and governance risks in addition to environmental contributions and concerns. We carry out an in-house analysis prior to making an initial investment and continue to monitor social and governance-related implications which we use to identify portfolio risks and engagement priorities once invested. We use proprietary reporting and third-party sources to assess each company in relation to each of the following four pillars:

Employee relations & human rights	Management structure	Staff remuneration	Taxation compliance
No evidence of violations of Principles 1 – 6 of the UN Global Compact and has processes to monitor compliance with and/or has no identified evidence of violating the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights.	No evidence that the company violates Principle 10 of the UN Global Compact and has a suitable supervisory board that effectively oversees management activities on behalf of shareholders. The supervisory Board has at least one independent board member.	The company has disclosed remuneration policies and Director’s remuneration figures that align with the long-term interests of the entity and shareholders. The gender pay ratio should be equitable.	The company has published unqualified audited financial statements and reports. The company has no significant controversies on taxation and accounting.

Where a company is of moderate risk against any of the pillars, we will continue to monitor and, if deemed necessary, engage with the relevant management teams in order to further understand the issues and explore potential solutions and mitigation strategies. Where a company has a higher risk exposure to any of the criteria, this helps focus resources on monitoring, areas to improve or engagement with the company. Often the higher risk comes from limited data and outreach can be made where appropriate. Escalation can include potential divestment and is reviewed on a case-by-case basis.

Figure 13: Portfolio exposure to social and governance risks as at 29-Dec-23



Source: Bloomberg

Overall, only one portfolio company, a smaller Swedish wind developer, was highlighted as higher risk from the Good Governance Assessment, due to a lack of reporting on certain data points. After reviewing their sustainability report and considering their size, sector and region it was deemed they have the relevant policies in place. We have not found any material evidence which indicates the company has violated the relevant social and governance pillars.

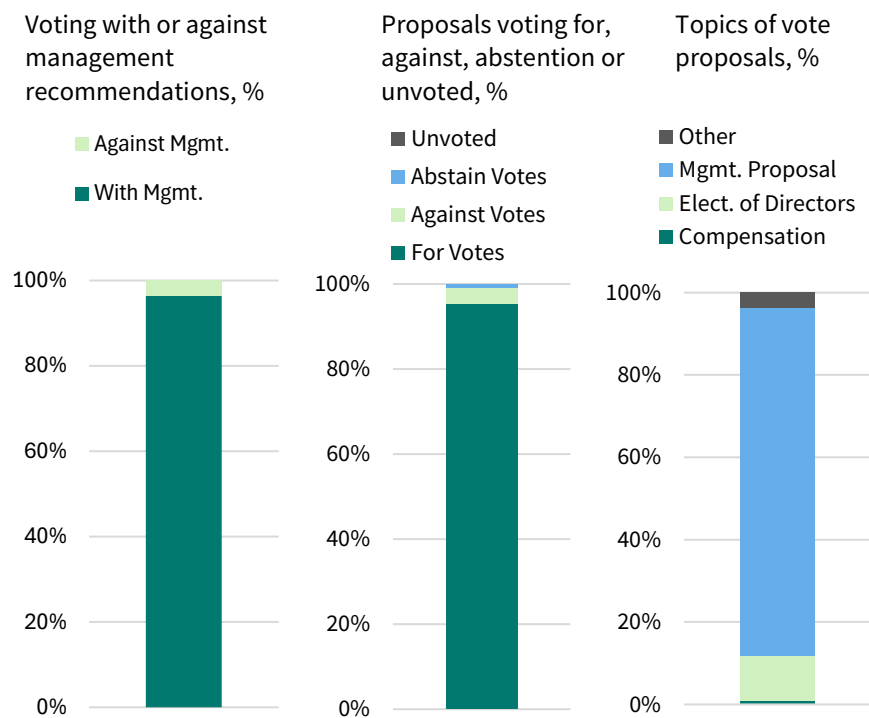
Engagement and Active Ownership

As a key component of our Responsible Investment Policy, our aim is to directly engage with companies and other investors to increase our impact. Engagement is a crucial tool to bring about positive change in society and represents productive and empowering shareholder action. We implement our own impact-focused monitoring process and sell discipline criteria. For example, divestment could occur as a result of a company no longer being involved in its green sector, a significant increase in exposure to coal or other non-green activities, or lack of appropriate action relating to material social violations. We actively engage with companies through:

- Shareholder voting
- Attendance and topic raising at management meetings in conjunction with other investors
- Outreach and conversation with senior management teams

During the reporting period there were approximately 260 proposals, for which we voted with management about 96% of the time. The main reason for voting against management often related to share issuance where we deemed the upper threshold to be unnecessarily high and could lead to dilution of existing shareholders.

Figure 14: Voting record on proposals



Source: Broadridge

Investor Alliance for Human Rights

Green Investment Partners have been members of the [Investor Alliance for Human Rights](#) since Sep-22. The Investor Alliance for Human Rights is a collective action platform for responsible investment guided by the UN Guiding Principles for Business and Human Rights. They are a membership-based, non-profit initiative focusing on the investor responsibility to respect human rights, corporate engagements that drive responsible business conduct, and standard-setting activities that push for robust business and human rights policies. Their membership is currently comprised of over 240 institutional investors, including asset management firms, trade union funds, public pension funds, foundations, endowments, faith-based organizations, and family funds. Their members currently represent a total of over US\$14 trillion in assets under management and 21 countries.

The Investor Alliance for Human Rights have organised a collective investor engagement with companies relating to human rights in the Uyghur Region of China. This engagement is underpinned by businesses' (including investors') responsibility to respect human rights in their business operation as set out in the UN Guiding Principles on Business and Human Rights.

We are an active participant of the auto-sector working group of the Investor Alliance for Human Rights. Types of engagement carried out in 2024 include:

- Joint lead engagement for a major Asian electric vehicle manufacturer, where we have been working to gain answers to and improve disclosure on certain ESG topics
- Co-signing letters and attending follow up sessions to gain insights from auditors who have experience in the Uyghur Region in China
- Attended an investor consultation meeting with Under Secretary Rob Silvers from the Department of Homeland Security on the Uyghur Forced Labor Prevention Act (UFLPA)

Outlook

Since the last impact reporting period we have:

- Streamlined the impact report process by building and utilising a proprietary impact tracking tool, used for both pre and ongoing sustainability reporting.
- Continued to monitor the year on year progress each investee company has made towards setting and complying with SBTi targets in view of achieving the long-term global warming objectives of the Paris Agreement. In 2023 we saw a material increase in SBTi-approved commitments and targets set across the portfolio from the baseline level.

However, we also wish to highlight a number of areas in which we endeavour to improve on:

- Continue to improve the methodology for GHG emissions reporting, in particular scope 3 and avoided emissions. Although 10 companies reported some type of avoided emissions during the reporting period, we still need to target consistency and comparability amongst companies, which we hope will eventually be audited. This also applies to scope 3, where some companies only report on certain scope 3 emissions, which reduces effectiveness when comparing or aggregating companies. We will endeavour to rely less on estimates and push for full independently verified emissions disclosure.
- Evaluate and improve the historical data in future reports as more data and insight into the calculation methodologies become available. Therefore, the data provided in this reporting report may be restated in the future in order to improve consistency and comparability.
- Continue to monitor engagement activities and disclose where companies have achieved or not achieved improvements.
- Utilise and leverage third party sources of biodiversity data and methodologies are developed and deployed in order to better understand and quantify the portfolio's positive and negative impacts on nature at a local and system-wide scale.

Overall, we continue to have a positive outlook on the renewable energy and cleantech sectors. Despite the prevailing uncertainties in the global economy and politically, the need to address global environmental issues has never been greater. We take our role as a sustainable investment manager seriously and we understand the reflexive impact our capital allocation decisions can have on the businesses we invest in. Consequently, we remain committed to ensuring our portfolio continues to provide long-term investment opportunities whilst actively contributing to the mitigation of global climate change effects.

Glossary

Term	Description
EU Sustainable Finance Disclosure (SFDR)	Supported by the EU Taxonomy, the SFDR requires reporting of detailed ESG data based on three levels of commitment to sustainability: (1) Article 6 products that do not consider sustainability, (2) Article 8 products that promote ESG characteristics and (3) Article 9 products that have sustainable investment as a core objective.
EU Taxonomy	The EU taxonomy aims to provide companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable in alignment with a net zero trajectory by 2050 and broader environmental goals. In this way, it aims to serve as a market transparency tool to protect investors from greenwashing, help companies to become more climate-friendly, mitigate market fragmentation, and help shift investments where they are most needed.
Task Force on Climate-related Financial Disclosures (TCFD)	<p>Set up by the Financial Stability Board in 2015, the TCFD set out a global, climate-focused framework to help organisations more effectively disclose climate-related risks and opportunities through their existing reporting processes. It is based on four pillars; (1) Governance; (2) Strategy; (3) Risk Management; (4) Metrics and targets.</p> <p>Since 2021 all UK premium-listed and standard-listed companies have been required to state, in their Annual Report, whether their disclosures are consistent with TCFD recommendations, or to explain why not. The UK Government is also making TCFD-aligned disclosure mandatory for over, 1,300 of the largest UK-registered companies and financial institutions, making it the first G20 country to do so.</p>
Task Force on Nature-related Financial Disclosures (TNFD)	The TNFD has developed a set of disclosure recommendations and guidance for organisations to report and act on evolving nature-related dependencies, impacts, risks and opportunities. The recommendations are structured around four pillars: Governance, Strategy, Risk & Impact Management, Metrics & Targets. The framework is consistent with the TCFD, ISSB, and the goals and targets of the Kunming-Montreal Global Biodiversity Framework.
International Sustainability Standards Board (ISSB)	<p>The IFRS Foundation announced the formation of the ISSB at COP26 in 2021 with the aim of developing standards for a global baseline of sustainability disclosures to meet the information needs of investors. It builds on the work of market-led investor-focused reporting initiatives, including Climate Disclosure Standards Board (CDSB), TCFD, Global Reporting Initiative (GRI) and the industry-based SASB Standards.</p> <p>IFRS S1 provides a set of disclosure requirements designed to enable companies to communicate to investors about the sustainability-related risks and opportunities they face over the short, medium and long-term. IFRS S2 sets out specific climate-related disclosures.</p>
Carbon Disclosure Project (CDP)	The CDP runs a voluntary environmental disclosure system for corporations, cities, states and regions at the request of shareholders and other stakeholders. Each year the CDP allocates a score to each submission on climate change, water security and deforestation. In 2023 more than 23,000 companies reported environmental data and information through CDP.

<p>UK Sustainable Disclosure Requirements (SDR)</p>	<p>The FCA published an inaugural consultation paper¹⁹ on the proposed sustainable investment labelling regime for investment products in October 2022, receiving 240 written responses from investors and consumers. The subsequent policy statement was released in Q4 2023. An anti-greenwashing rule applies to all UK FCA-authorized firms who make sustainability-related claims about their products and services. The regulation also proposes four financial product labels for in-scope firms to voluntarily label their UK-domiciled products providing they meet the relevant criteria for each category.</p> <ul style="list-style-type: none"> • Sustainable focus: Products with an objective to maintain a high standard of sustainability in the profile of assets by ensuring 70% of the portfolio meets a “credible standard of environmental and/or social sustainability” or aligns with a specified environmental and/or social sustainability theme. • Sustainable improvers: Products with an objective to deliver measurable improvements in the sustainability profile of assets over time. • Sustainable impact: Products with an explicit objective to achieve a positive, measurable contribution to sustainable outcomes. • Sustainability mixed goals: Products with a sustainability objective to invest at least 70% in accordance with a combination of the sustainability objectives for the other labels.
<p>UN Principles for Responsible Investment (UN PRI)</p>	<p>Firms can elect to become signatories according to six principles, which include the reporting and incorporation of ESG issues into investment analysis and decision-making processes, appropriate disclosure on ESG issues by the investee entities and promotion of alliance and implementation of the Principles within the investment industry.²⁰</p>
<p>Net Zero Asset Manager's Initiative (NZAMI)</p>	<p>A commitment to supporting the goal of net-zero GHG emissions by 2050 and to ensuring that investments are managed in line with the goal of net-zero GHG emissions by 2050 or sooner.²¹</p>
<p>Science-Based Targets Initiative (SBTi)</p>	<p>The SBTi is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF) and is the lead partner of the Business Ambition for 1.5°C campaign. They show companies and financial institutions how much and how quickly businesses need to reduce their GHG emissions to prevent the worst impacts of climate change, enabling them to set targets to lead them on a clear path towards decarbonisation. Targets are considered ‘science-based’ if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.</p> <p>Where sufficient data is not provided, the SBTi methodology advises a default temperature score of 3.2 degrees Celsius to be applied.</p>

¹⁹ [Sustainability Disclosure Requirements and investment labels \(2022\) Financial Conduct Authority](#)

²⁰ [UN Principles for Responsible Investment](#)

²¹ [NZAMI Signatory Requirements](#)

Term	Description
Tonne/metric ton (t)	A metric ton or tonne (t) is a unit of weight equal to 1000 kilograms, not to be confused with the imperial unit 'ton' (T). We have used metric tonne in this report.
Metric tonnes of carbon dioxide equivalent (tCO₂e)	tCO ₂ e allows other greenhouse gas emissions to be expressed in terms of CO ₂ based on their relative global warming potential (GWP). The five main greenhouse gases besides carbon dioxide (CO ₂) include methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF ₆). As different greenhouse gases last in the atmosphere for different lengths of time, they also absorb heat at discrepant efficiencies and rates. For example, 1kg of emitted methane would be expressed as 25kg CO ₂ e, due to it having 25 times the potency over a 100-year period compared to carbon dioxide.
Carbon to Value Invested (tCO₂e/€1m invested)	The aggregation of portfolio GHG emissions per €1 million invested. The owned constituent GHG emissions is based on Enterprise Value.
Carbon to Revenue (tCO₂e/\$1m revenue)	The sum of all owned constituent GHG emissions divided by the sum of all apportioned revenues.
Weighted Average Carbon Intensity (tCO₂e/\$1m revenue)	The weighted average of individual company's intensities (GHG emissions over revenues), weighted by the proportion of each constituent in the portfolio or index.

Appendix: Emissions Methodology

Emissions data reporting is in its infancy and is a fundamental shift in how companies assess their operations. As a result, there are areas that need discussing, standards to be set, and improvements made. We will set out how we addressed certain issues and limitations below.

We gathered required operational and emissions data on investee companies, where available, and when not disclosed estimates were made using Bloomberg or internally.²² This is an iterative process and we aim to improve our data quality and methodology over time, concurrently with the sustainable investment industry as consensus is created and regions implement regulations. Unless stated otherwise, we have estimated emissions on an annual basis, for both emitted and avoided. Therefore, where appropriate we have scaled emissions values by the estimated asset life to align with the annualised estimates of avoided emissions. For example, if a company is manufacturing wind turbines with a 30 year asset life, we look at avoided emissions over a single year, and therefore to be consistent we also annualise the scope 1, 2 and 3 emissions emitted during that year by dividing the non-annualised emissions by the asset life.

Annualised Scope 1 and 2 GHG Emissions

During the reporting period, 83% of investee companies disclosed scope 1 and 2 emissions. Where possible we used data provided by companies via their publication or statutory reporting. For the companies that did not report, Bloomberg estimates were used.

It is important to note that scope 2 emissions can be measured using two different methodologies:²³

- **Market-based:** Emissions from electricity that companies have purchased, including renewable energy certificates and contracts.
- **Location-based:** Emissions based on the average emissions intensity of grids on which energy consumption occurs. The grid emission factor will depend on the sources used to generate energy. Location-based emissions do not take into account renewable energy certificates.

This choice in methodology may result in inconsistent results and highlights the need for more standardisation in scope 2 emissions reporting. Market-based emissions will take priority over location-based emissions. Where appropriate we have scaled emissions values by the estimated asset life to get an annualised value.

Annualised Scope 3 GHG Emissions

Scope 3 emissions on average account for around 70% of the average corporate value chain's total emissions.²⁴ During the reporting period, 83% of our portfolio companies reported on at least some parts of their scope 3 emissions, showing a significant improvement on previous disclosure in 2022 of 53% and in 2021 of 33% of companies.

To estimating the scope 3 emissions for the companies which did not report, we used Bloomberg's model. Where appropriate we have scaled emissions values by the estimated asset life to get an annualised value.

For an electric two-wheeler manufacturer, we scaled down Bloomberg's estimate of its scope 3 emissions by a factor of 51x, as the model for scope 3 did not distinguish between the electric two wheelers it produces and companies which produce electric cars, which have many times more scope 3 emissions. We used peer company's estimated GHG scope 3 emissions, divided by its revenue, to scale the value for the electric two-wheeler manufacturer.

²²For Scope 3 greenhouse gas (GHG) emissions, if available, otherwise estimated Scope 3 emissions based on Bloomberg's proprietary model or an industry intensity implied model. Data is populated using a waterfall logic from either of the following fields in the priority shown: Scope 3 GHG Emissions, Scope 3 Estimated Emissions, Scope 3 Industry Implied Estimate. For Scope 1+2 a similar logic is used.

²³ [GHG Protocol Scope 2 Guidance \(2015\) World Resources Institute](#)

²⁴ [Closing the scope 3 GHG emissions data gap \(2023\) Bloomberg](#)

Annualised Avoided GHG Emissions

In 2023 56% of companies reported some form emissions avoided, similar to the 58% in 2022 and improved on the 43% in 2021.

Avoided emissions calculations and standards will continue to evolve. Our approach is centred around avoided emissions being GHG emissions that would occur in the absence of the investee companies' products or services activity that the company enables on an annual basis.

It is important to differentiate between GHG emissions emitted and avoided. GHG emissions emitted are measurable and physically emitted into the atmosphere. Avoided emissions is the concept that a company's products or services can avoid emissions – either by enabling emission reductions or by providing a low-emission version of existing products. It is an estimated value to give an indication of a company's positive impact towards the reduction of system-wide emissions.

This is not to be confused with Net Zero. Net Zero refers to a state in which the GHG emissions going into the atmosphere are balanced by removal out of the atmosphere. Avoided emissions are not being removed from the atmosphere but can provide a positive system-wide impact by reducing emissions. As a simple example, if a country requires additional electricity generation capacity and has the option of a coal fired power station or a wind farm. Both release some GHG emissions through their construction involving concrete and steel, but over the assets lifetime the wind farm has significantly lower GHG emissions. This difference can be defined as avoided emissions. To give a complete picture, it is important that scope 1, 2 and 3 are included in the analysis.

We used a company's self-reported avoided or displaced emissions value, where available. The quality and method varied significantly from company to company, there is further work to be done to improve avoided emissions disclosures and comparability between companies. For example, companies may report an avoided emissions value but over a multiyear period. In this case, we attempted to estimate a current year value using the data available and internal estimates.

For companies where no such avoided emissions data was available, we estimated it internally and broadly speaking the methodology we used is as follows:

- For renewable power producers, we took the annual power generated by the company (in GWh) and applied an approximate electricity carbon intensity (tCO₂e/GWh). We then scaled it by a developer or operator factor (i.e. the benefit or avoided emissions associated with those clean electrons should be somehow distributed between the different players in the renewable energy transition, and not 100% claimed by the end operator)
- For manufacturers of solar modules and wind turbines, to estimate avoided emissions we used the product equivalent GWh produced over the period, average capacity factor, how much the product represents of the total solar or wind project and the approximate electricity carbon intensity.
- For electric vehicle, moped and scooter manufacturers, an estimation of emissions saved by the electrified transport versus fossil fuel transport, scaled to how many products that company sold.
- For battery energy storage, estimated avoided emissions²⁵ were used with a scaling factor. Energy storage provides the ability to store energy from intermittent solar and wind sources, avoid curtailment and reduce the dependency on fossil fuel-based power.

²⁵ MA DOER 2016 (ESI: State of Charge Report <https://www.mass.gov/info-details/energy-storage-study>) and USA Energy Storage Association (ESA) 2017 whitepaper "35 X 25: A Vision for Energy Storage" (pages 12,13)

Limitations

Despite the increasing availability of non-financial data being made available by companies, there are several limitations. We discuss them here as areas of improvement for ourselves and the industry to focus on:

- Lack of reporting key information by companies. Although improvements have been made and further regulations are in the pipeline, lack of reporting is still an issue, especially for smaller companies.
- Methodologies used by the companies to calculate their emissions values may not always be disclosed, audited or comparable between different companies. Therefore, we are unable to evaluate the accuracy of carbon accounting methods used by each company in this reporting period and have taken the data at face value, however we presume that there may exist inaccuracies within the data.
- Emissions data does not always account for all defined greenhouse gases²⁶ besides carbon dioxide.
- All the emissions data presented here relies in part or fully on GIP internal estimates and has not been externally audited. Even when a company reports emissions data, the use of third-party audits should be promoted to assess the accuracy of such claims.
- Companies are incentivised to report lower emissions. Another effect is that only the best companies, with already low emissions, report their data and the most polluting businesses stay silent.
- Scope 3 is still relatively in its infancy with lack of comparability and companies reporting only some of the GHG protocol's 15 categories of scope 3 emissions. The data taken directly from company reporting may differ between companies and are not necessarily verified or audited.
- Avoided emissions are not well defined. There is no international standard or consistent terminology to describe avoided emissions. A consensus needs to be reached as this area currently relies heavily on internal estimates and judgements and is therefore susceptible to greenwashing.

We believe we have implemented an appropriate methodological framework with the data currently available, with the aim of providing a best-efforts indication of the portfolio's emissions. Within the Outlook section, we discuss enhancements we plan to implement in future annual impact reports.

²⁶ For more information on the greenhouse gases: <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

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