



Green
Investment
Group

Progress Report 2023

December 2023

Welcome to the Green Investment Group's Progress Report 2023

This report gives an overview of our recent activity, covering the period from 1 October 2022 to 31 September 2023, unless indicated otherwise.



Cover image:
Hazelwood Battery Energy Storage System, Australia

Contents

Welcome from GIG Global Head	4
Our activity	6
Green impact	8
Overview	8
Letter from the GPC	9
Green ratings report	12
Green impact statements	19
Green impact statements for Funds including Independent Limited Assurance Report	20
Green impact statements for Balance sheet including Independent Limited Assurance Report	28

Welcome from GIG Global Head, Mark Dooley

2023 has been a momentous year for the energy transition. New challenges emerged and, with them, new opportunities.

Global investment in renewable energy surpassed previous highs in the first half of 2023¹ and the capacity of grid-connected renewables reached an important milestone of 1 TW². But there is much more to do. As I write, global leaders are gathering at COP28 where the goal to triple global installed renewable energy capacity by 2030³ is a key focus of discussions. Yet, we can take heart from the new thresholds reached which reflect the growing momentum behind the transition and, I believe, a recognition by governments and businesses that green investment is the solution to the energy trilemma - affordability, sustainability, and security of supply.

However, no part of the energy market is immune to geopolitical uncertainty or macroeconomic pressures. Short-term impacts from disruption in supply chains, increased input prices and costs of capital, have driven up costs across almost all energy sources⁴. The willingness of government and corporate offtakers to adapt to these higher prices has been put to the test.

Pleasingly, while it hasn't happened instantaneously, we are seeing public and private sector energy buyers acknowledge the fundamental necessity of the transition and commit to absorbing increased costs⁵. One noteworthy example of this was the UK Government's recent announcement of increased price caps for next year's Contract for Difference (CfD) tender round⁶.



1. 'Renewable Energy Investment Hits Record-Breaking \$358 Billion in 1H 2023', [BloombergNEF](#), 21 August 2023
2. BloombergNEF, Historic capacity interactive dataset, 2023
3. 'Tripling Global Renewables by 2030', [BloombergNEF](#), 21 November 2023
4. World Energy Investment 2030', [IEA](#), 25 May 2023
5. 'Corporations Brush Aside Energy Crisis, Buy Record Clean Power', [BloombergNEF](#), 9 February 2023
6. 'Contracts for Difference (CfD): Allocation Round 6', [GOV.UK](#), 16 November 2023

A new policy landscape

The huge gains in wind and solar over the last decade have shown us how powerful the interaction of policy, industry and private capital can be. Excitingly, we're now experiencing a similar confluence of effort to replicate the same growth trajectory across the newer technologies that are set to play a critical role in the next phase of the transition.

Throughout 2023, we've seen governments around the world take steps to advance the next generation of technologies into commercial deployment while maximising the economic and industrial benefits in their jurisdictions.

The Inflation Reduction Act in the US was a very direct response to these complex challenges and opportunities, and we have observed its magnetic pull towards activity in that market. Similarly, the EU's RePowerEU and the recent package of measures, especially those supporting the switch to electrification and renewable hydrogen, are welcome initiatives which aim to address climate and industrial policy in tandem.

Our experience shows investor appetite for exposure to technologies such as batteries, hydrogen and biofuels continues to grow. And now, thanks to conducive policy regimes and strong industry collaboration, we're able to unlock exciting new opportunities for investors in earlier stage technologies.

Enabling policy, industrial collaboration, and committed capital – the key pieces of the puzzle are now in place. That's why, from sustainable aviation fuel to low-carbon fertilisers, we're confident the next generation of transition technologies is poised to scale at breathtaking pace throughout this decade.

You can read more about our work in these areas in this report.

Navigating together

Amidst this dynamism, we continue to drive forward as part of Macquarie Asset Management (MAM).

Now more than ever, investors are seeking trusted partners with a strong track record of delivery. With almost 20 years of renewable energy investment experience across MAM, we understand how to build resilience and ensure our portfolio continues to adapt to the world around us. Sitting within the world's largest infrastructure manager⁷, we believe our market leadership, scale and deep expertise position us to successfully navigate this complex and volatile environment on behalf of our clients.

In challenging times, partners are seeking trust and reliability. We are grateful for the continued support of our clients, partners and stakeholders, whose shared ambition continues to be a catalysing force as we move towards our collective goals.



Mark Dooley

Global Head, Green Investment Group

7. Ranking of the world's largest infrastructure managers by direct investment capital raised over the past five years, [Infrastructure Investor](#), November 2023.

Our activity

As part of the world's largest infrastructure asset manager⁸, we're connecting our clients to a compelling range of green investment opportunities and transition solutions, across a breadth of technologies, geographies, and stages of the energy transition. In doing so, we're able to mobilise the capital of some of the world's largest institutional investors behind the transition.



Creating scalable solutions

Although global investment in the energy transition surpassed \$US1 trillion for the first time in 2022, to meet global net zero targets, the sector requires around \$US4 trillion by the end of this decade⁹. Over the same period, the global capacity of wind is expected to rise from 930 GW to 1,930 GW, whilst global solar capacity is expected to rise from 1,231 GW to 5,868 GW¹⁰.

Through our portfolio companies, we're working to help accelerate deployment and create scale, while seeking opportunities for our clients to access this significant and growing market.

Corio Generation, our specialist offshore wind business, continued to expand its geographic reach during the reporting period by preparing for country first wind auctions in Portugal, Norway and Australia. In October, Corio announced an expansion of its longstanding partnership with TotalEnergies and entry into the US market through an investment in Attentive Energy.

Following our investment in Galehead Development in July 2022, we stepped up our commitment to the US solar market through the acquisition of Treaty Oak Clean Energy in December 2022. Treaty Oak is an end-to-end developer of utility scale solar and battery storage projects, benefitting from its own self-originated pipeline as well as complementing Galehead's origination and early-stage development work by acting as a late-stage development partner acquiring projects from Galehead and taking them through to ready-to-build. This approach has already proved successful with Treaty Oak's acquisition and development of two utility-scale solar plus storage projects in MISO-South from Galehead.

Our European solar energy company, Cero Generation secured contracts for two projects in the UK's latest Contracts for Difference allocation round alongside UK development partner Enso Energy, and commenced a range of new projects, including a country-first that is paving the way for grid modernisation. With its partner Enso Energy, Cero reached financial close on a 49.5 MW/99 MWh battery storage system in South Gloucestershire, UK. Due to be operational in late 2024, this will be the UK's first co-located solar and battery storage project to feed electricity directly into the transmission network.

8. Ranking of the world's largest infrastructure managers by direct investment capital raised over the past five years, Infrastructure Investor, November 2023..

9. 'Global low-carbon energy technology investment surges past \$1 trillion for the first time', BloombergNEF, 26 January 2023.

10. BloombergNEF short term capacity forecast, data collected November 2023.

Investing in next generation solutions

In addition to the mature technologies of wind and solar, we're investing across the next generation of decarbonisation solutions. Our emerging technologies strategy offers exposure to a range of synergistic technologies that are critical to delivering decarbonisation.

This strategy includes investment in batteries, which are essential to delivering reliable green energy supplies that can respond to fluctuations in demand and generation. By 2030, capacity is expected to increase fifteen-fold to 411 GW¹¹.

One year on from creating and launching portfolio company Eku Energy, the business has rapidly established itself with its project pipeline growing to over 3 GWh globally, including 1 GWh in Australia. In June 2023, Eku and partners energised the Hazelwood Battery Energy Storage System (BESS), Australia's largest privately funded utility-scale battery storage project. Hosted at the site of a retired coal-fired power station, it provides a template for the successful repurposing of thermal generation assets.

Adding to our fast-growing energy storage portfolio, we announced an investment into French battery manufacturer Verkor, in September 2023. The investment will support the development of their first gigafactory in Dunkirk which is expected to have an annual production capacity of 16 GWh.

For many sectors, including shipping, aviation, road freight, agriculture and steel production, decarbonisation through electrification is challenging. With these sectors accounting for around 30% of global carbon emissions, the demand for green fuels is rapidly growing¹².

Following our acquisition of BayWa r.e. Bioenergy GmbH, we rebranded the specialist biomethane platform as VORN Bioenergy in February 2023. Since our acquisition, market expansion beyond the company's German roots has been a key priority. Building on its progression of new projects in Spain and Italy, the business recently acquired Italian developer Alvus. The transaction comes at a time when Italy's National Recovery and Resilience Plan (Piano Nazionale di Ripresa e Resilienza - PNRR) is expected to increase biomethane production in the country tenfold by 2026 to approximately 2.3 billion m³/a¹³.

With the green hydrogen market expected to grow to \$1.4 trillion per year by 2050¹⁴, our joint venture with Nobian, HyCC, continues to play an important role in the sector in Europe. Two of its projects, H2-Fifty and H2ermes, were awarded IPCEI grants from the Dutch government during the reporting period.

In July we announced an investment in Atlas Agro, a green nitrogen fertiliser company. Responsible for approximately 5% of total greenhouse gas emissions, the manure and synthetic fertiliser industry emits more carbon than global aviation and shipping combined¹⁵. By using green hydrogen in its production process, in lieu of conventional fossil fuels-based nitrogen fertiliser production, Atlas Agro is supporting the decarbonisation of global agriculture, whilst helping boost industry efficiency.

As an active asset manager, we're committed to supporting the growth of our portfolio companies. We play an active role in securing talent to drive forward the leadership of these businesses and are pleased to welcome new CEOs to VORN, Eku Energy and Calibrant.



11. 'Global Energy Storage Markets', BloombergNEF, October 2022.

12. 'Decarbonizing road freight: Getting into gear', Deloitte, 21 January 2021.

13. 'VORN acquires Italian project developer Alvus', VORN, 13 October 2023.

14. 'Emerging green hydrogen market set to help reshape global energy map by end of decade, creating US\$1.4 trillion market by 2050', Deloitte, 13 June 2023.

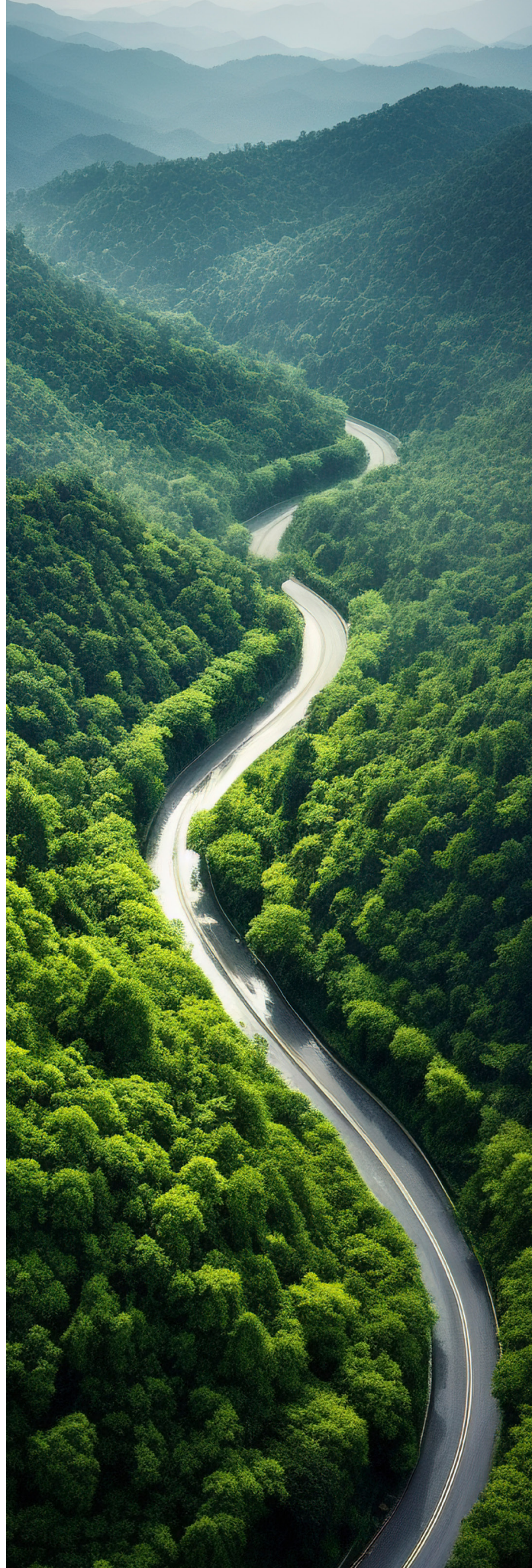
15. 'Carbon emissions from fertilisers could be reduced by as much as 80% by 2050', University of Cambridge, February 2023.

Green impact

All investments overseen by GIG¹⁶, whether held on our own balance sheet or by funds managed by Macquarie Asset Management, are subject to our green impact governance approach, which requires that each investment must contribute to one or more of our five Green Purposes – please refer to the green impact governance section of our [website](#) for details.

In this section of the Progress Report, we report on our green impact – the contribution of investments to our Green Purposes – in the form of quantitative green impact statements and qualitative Green Ratings, aggregated for our investments. Also, the Green Purposes Company provides its annual commentary on our contribution to the Green Purposes¹⁷.

For broader sustainability considerations, we apply Macquarie Asset Management's approach to identifying and managing Environmental, Social and Governance (ESG) risks and opportunities. This approach considers a broad range of issues, including work health and safety, transitioning our assets towards net zero emissions, stakeholder engagement and many others. Please refer to the [MAM Sustainability Report 2023](#) for further details.



16. For definition of the scope to which our approach to green impact governance applies, please refer to the Green Investment Policy, available on our [website](#)
17. Please refer to the green impact governance section of our [website](#) for details of the role of the Green Purposes Company.

ANNUAL LETTER 2023

Introduction

This is our sixth annual letter in which we independently comment on GIG's performance against its green objective and five green purposes (hereinafter referred to as the GPs). The letter addresses GIG branded investments globally for the year to 31 March 2023. We confirm that no request to change the GPs was received in that period and to our knowledge investments made were in accordance with them. We have used GPC commissioned research, peer review analysis and other sources of information in drawing our conclusions. This letter should not be relied upon to provide formal assurance of GIG's activities or their green impact.

Executive summary

GIG's green investment activities are market leading and are setting the pace for others to follow. While comparable institutions are also raising their game in response to market scrutiny on greenwashing and other drivers, it is our view that overall GIG remains at the forefront of practice and is playing a leading role in the rapidly evolving green investment market.

GPC exists to hold GIG to account on its GPs. We welcome the progress which GIG has made on several areas for improvement noted in our previous letters, and we remain committed to working with GIG in the spirit of continuous improvement as market practice evolves. We want GIG to succeed in its mission and continue to play a key role in the urgent transition to net zero and, in so doing, benefit from what has been described as the investment opportunity of the 21st Century.

We have aligned our detailed commentary below to the main themes covered by leading market standards on green investment.

Investment strategy

GIG moving into Macquarie Asset Management (MAM) in April 2022 has transformed the potential for green impact it can now achieve. It is pleasing to see this play out through the increased scale, diversity and geographical reach of GIG's investments and ambitions. We are particularly pleased to observe a drive to invest in diverse technologies and business models, something we have encouraged in previous letters. This is very welcome because to achieve its stated mission – to accelerate the transition to net zero - GIG will need to invest across a broader spectrum of the five green purposes.

Governance

GIG's green governance framework remains an industry benchmark. The combination of MAM's Chief Sustainability Officer, the expertise of GIG's Green Analytics Team and the suite of policies, controls and decision-making structures,

Registered office: Princes Exchange, 1, Earl Grey Street, Edinburgh EH3 9EE
E: trustees@greenpurposescompany.com
W: www.greenpurposescompany.com

Green Purposes Company Limited is a company limited by guarantee registered in Scotland number SC529326

places GIG in the top tier of market practice. The GPC also forms part of GIG's governance. We hold quarterly meetings with GIG's senior leadership team, perform site visits and undertake ad-hoc briefings with the Green Analytics Team. We believe GPC's role and special share arrangement is effective and relevant and contributes to GIG's reputation as a leading green investor.

Risk and opportunity management

The management and control of environmental and social risk is governed by MAM's Environmental and Social Risk framework. To our knowledge, this is deployed by GIG to account for ESG risks throughout the investment cycle and within the associated supply chain. We consider this approach to be aligned with current market practice. Nonetheless, the risk landscape is evolving, for example in relation to the increasing dependency of renewable technologies on critical minerals and their extended supply chains. To get ahead of such developments we encourage GIG to consider going further such as by introducing TCFD (Taskforce for Climate-Related Financial Disclosures)-style stress testing, uncertainly forecasting and scenario analysis within investment decision making and portfolio monitoring, and publishing more information on the application of the risk framework more generally.

Metrics and targets

GIG's green impact methodology follows widely accepted leading practice, and we noted in our 2022 letter that this should be reviewed as the market evolves. As such, it is pleasing to see that the Green Analytics Team is strengthening its green ratings approach for "the advancement of efficiency in the use of natural resources" GP, and we would encourage consideration of a similar approach for those other GPs where quantitative metrics are less-well developed.

Continuous improvement and thought leadership

Together, GIG and MAM make a powerful platform from which to lead by example, set the pace in green investment, bring forward market innovations and positively influence the policy landscape. Accordingly, it is encouraging to see GIG's continued involvement in several industry and government forums, bringing expertise and global experience to bear. Similarly, to see GIG's increasing range of novel investments which can help mobilise private sector capital into emerging technologies. This continues to present a significant opportunity for GIG, and we encourage them to share publicly more of their work on innovation and thought leadership.

Stakeholder engagement

GIG benefits from MAM's established stakeholder engagement approach which is used to engage with each of their key stakeholder groups on their sustainability activities. Stakeholder engagement is an integral aspect of good market practice and of incoming disclosure regimes and associated materiality considerations. We would expect GIG to maintain a focus on continuous improvement in this area as market and peer group performance evolves.

Disclosure

Public disclosures on GIG's activities, green governance framework and green impact are made across several published documents. These include the GIG Progress Report 2023; the Green Investment Bank's Annual Report and Accounts; GIG Financed Emissions Report 2022; MAM Stewardship Report 2022; MAM Sustainability Report 2023; GIG's green investment policy and green investment principles; GIG net zero commitment; and various press releases. GPC welcomes the increased emphasis on disclosures since our last letter which we consider aligns with good practice. It is noted that mandatory sustainability disclosures are evolving and there are new regulatory requirements in the pipeline. Likewise, the bar is being raised on what constitutes leading market practice and we encourage GIG to keep ahead in this changing landscape.

GPC activities

In our role we shine a light on risks and opportunities in the green investment market through thought leadership papers and other means. We have written previously about nature-based solutions as an emerging asset class, and more recently we published a report on the need for the renewable energy sector to adopt circular economy principles across its value chain. We also convened a workshop with stakeholders in Scotland to consider the issues raised in these reports, the outputs from which have been shared with GIG and placed on our [website](#).

We very much look forward to working with GIG over the year ahead.



Trevor Hutchings
Chair, Green Purposes Company Ltd
19 November 2023

Green ratings report

Our rating approach for the reporting period is consistent and comparable with our disclosures of these ratings last year. Further to last year's report, we have continued to iterate our approach and methodologies for evaluating contributions to the Green Purposes.

This year, in response to last year's recommendation from the Green Purposes Company, we have included additional information on how we produce Green Ratings for our assets in the Green Impact Reporting Criteria which can be found on our [website](#).

New assessment criteria for Promotion of Environmental Sustainability have been developed and tested this year, and will be applied to all projects in FY24. Our next focus, as identified in the review, is to update the assessment criteria for Advancement of Efficiency in the use of Natural Resources – to this effect, we have commissioned external advisors to develop a new tool for us to rate investments against a broader range of resource efficiency and circularity parameters.

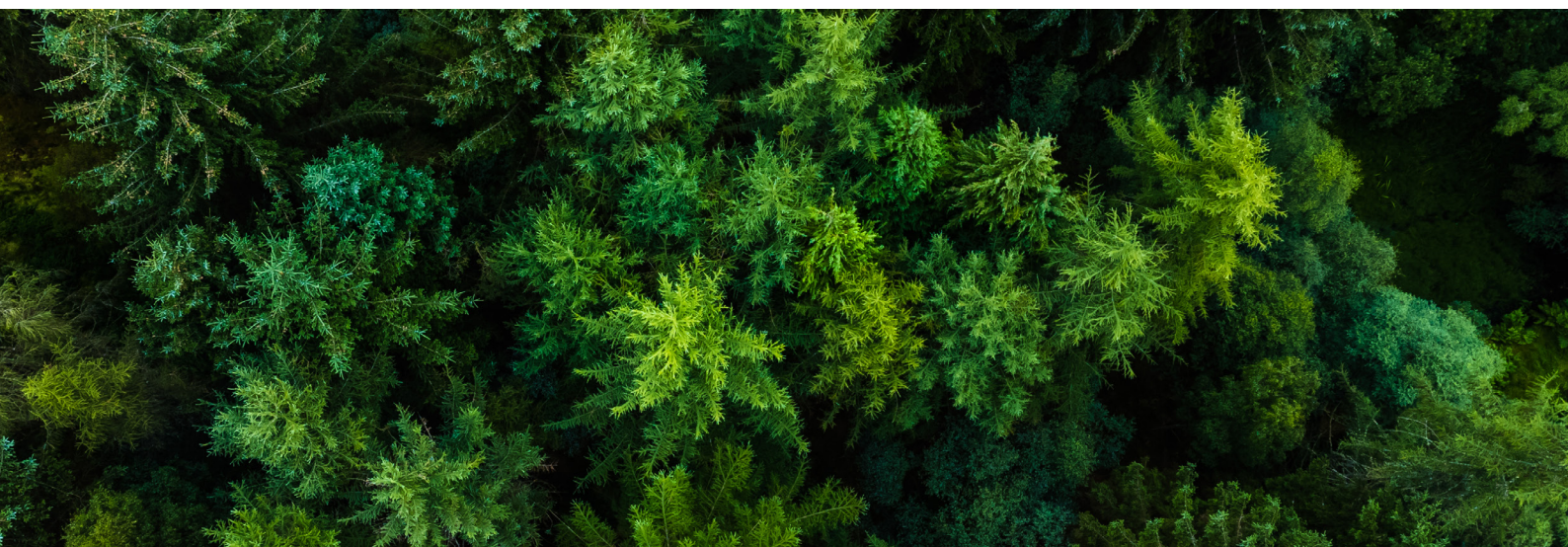
We use our green ratings against all five of our Green Purposes to inform investment decisions made under our green impact governance approach¹⁸ – a project's contribution is evaluated on a scale of AAA to E, as indicated below. Here we report our total ratings given to investments in the year (at Final Investment Decision (FID) or later in accordance with the Green

Impact Reporting Criteria), with the exception of individual assets in high-volume portfolios (such as rooftop solar) which may be on an aggregated basis. The graphics on the Funds and Balance Sheet sections below indicate the number of projects assigned to each rating.

The reporting period for our green ratings is April 2022 to March 2023. In accordance with our Green Impact Reporting Criteria which can be found on our [website](#), where a company or asset has been temporarily acquired on Macquarie's balance sheet in anticipation of transfer into a fund, it is not included until acquisition of the asset by the fund.

Contribution to Green Purposes for funds is determined by rating investments in two ways:

- Development platforms are only assessed against 'Promotion of Environmental Sustainability' - this is because the nature of their activity is to deliver indirect environmental sustainability contributions via the assets they develop and operate; the operations of the companies themselves are not deemed to have a material effect on the other green purposes.
- At the time of acquisition, and transfer into a fund if this occurs at a subsequent date, underlying assets in a portfolio company will be assessed against all Green Purposes, where the project status and available information allows. In some cases, such as high-volume portfolios, assets are grouped according to certain characteristics to allow multi-asset ratings¹⁹.



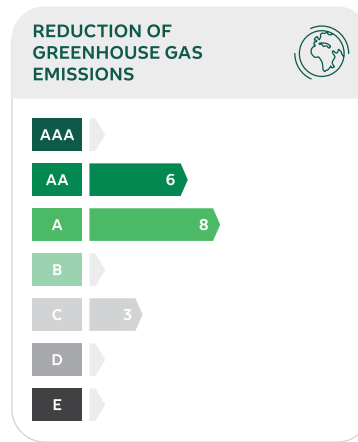
18. For definition of the scope to which our approach to green impact governance applies, please refer to the Green Investment Policy, available [here](#).

19. Grouping characteristics include environmental risk profile and by counterfactual for the purposes of calculating green impact (counterfactual is defined by technology, location, commercial operations date - see [here](#) for more information).

Funds

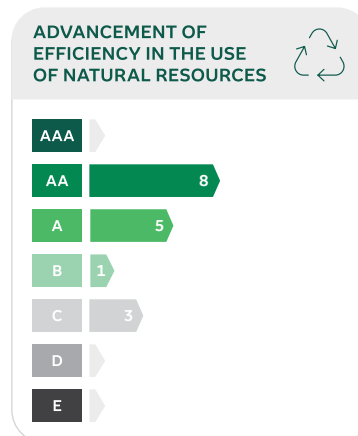
Reduce greenhouse gas emissions

- All the underlying, energy-generating assets in which we invested in 2022/23 are forecast to result in reduced greenhouse gas emissions. The highest rating is AA.
- For those assets that are not energy-generating, where possible we have quantified greenhouse gas emissions reductions. Electric Vehicle (EV) leasing assets, for example, are forecast to reduce greenhouse gas emissions and therefore have positively contributed to this Green Purpose. The greenhouse gas emissions reductions from Battery Energy Storage Solution (BESS) assets, however, are not possible to quantify using currently available data, and therefore these assets have been rated as neutral, with a C rating.
- Projects achieving higher green ratings for this green purpose are in locations with higher grid emissions (e.g. Brazil).
- The metric reported for this green purpose is greenhouse gas emissions avoided (kt CO₂e).



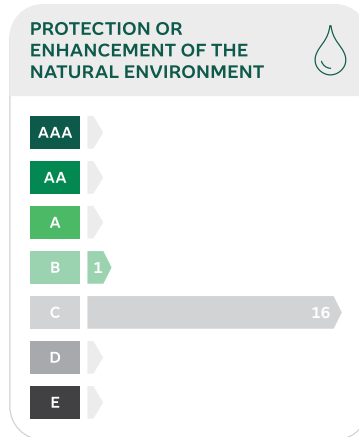
Advance natural resource efficiency

- All the underlying assets in which we invested in 2022/23, and that were assessed against this Green Purpose, are forecast to advance resource use efficiency or result in no direct change to resource efficiency. The highest rating is AA.
- Projects achieving higher ratings contribute to a reduction in the consumption of finite, natural resources, for example by providing renewable energy.
- The metric reported for this green purpose is renewable energy generation (GWh).



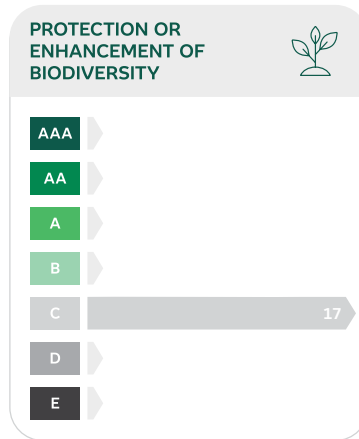
Protect or enhance the natural environment

- One EV portfolio asset is anticipated to contribute positively to this Green Purpose by displacing internal combustion engine vehicles, and thereby reducing air pollution.
- Most of the 2022/23 assets that were rated against this Green Purpose are anticipated to have no significant or minor adverse effects on the local environment, following environmental mitigation measures. The highest rating is B.



Protect or enhance biodiversity

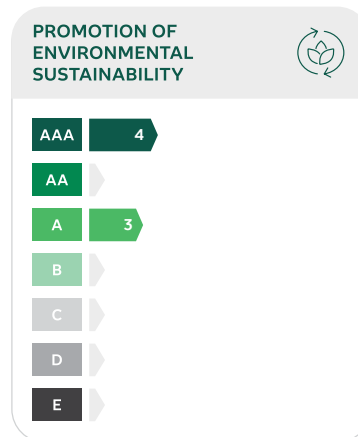
- All the 2022/23 assets that were rated against this Green Purpose are anticipated to have no significant adverse effects on biodiversity, following environmental mitigation measures. This leads to all projects receiving a C rating.
- Where there is uncertainty over impacts, we conservatively assume more severe impacts until mitigation measures are implemented.
- Adverse effects on biodiversity have been mitigated to the extent possible, with any residual effects deemed acceptable by planning and permitting authorities for each project.



Promote environmental sustainability

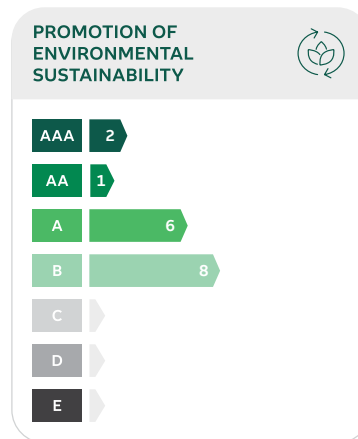
Development platforms and non-infrastructure portfolio companies

- While the other Green Purposes consider direct environmental sustainability contributions, this Green Purpose considers indirect contributions. Please refer to the Green Investment Policy on our [website](#) for our definition of this Green Purpose.
- All of our development platforms and non-infrastructure portfolio companies are expected to make a positive contribution to indirect promotion of environmental sustainability, the highest rating being AAA.



Underlying assets

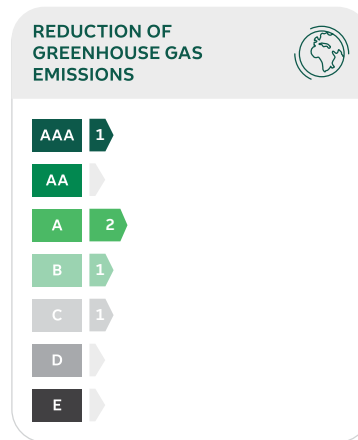
- All of the underlying assets invested in during 2022/23 are expected to make a positive contribution to indirect promotion of environmental sustainability. The highest rating is AAA.
- The following are examples of criteria met that demonstrated a positive contribution to this Green Purpose:
 - Long-term contribution to the transition to a low-carbon economy, for example a BESS asset is expected to have a long-term contribution to a low-carbon economy as it has the potential to support the build out of renewables in the grid.
 - Location and scale of the investment would demonstrate a new way of doing things, for example assets developed in countries with low renewables deployment have scored highly.
 - Innovation and longevity of the technology, for example those technologies which we determine to be particularly innovative and anticipate to remain a long-term solution for the low-carbon transition, such as BESS assets or EV leasing.
- Metrics associated with this Green Purpose are energy storage capacity in MW and MWh (BESS projects only).



Balance sheet

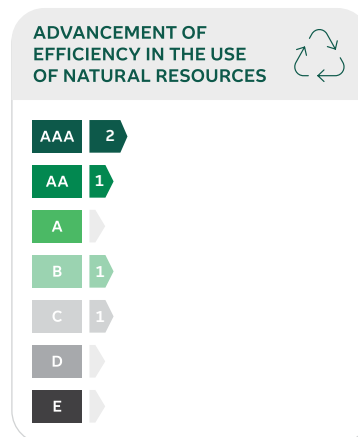
Reduce greenhouse gas emissions

- All the projects in which we invested in 2022/23 are forecast to result in reduced greenhouse gas emissions with two projects rated AAA, the highest rating.
- Projects achieving higher green ratings for this Green Purpose are sited in locations with higher grid emissions (e.g. India).
- The metric reported for this green purpose is greenhouse gas emissions avoided (kt CO₂e).



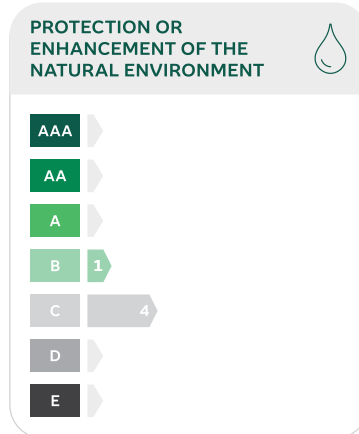
Advance natural resource efficiency

- All the projects in which we invested in 2022/23 are forecast to advance resource use efficiency. The highest rating is AAA.
- Projects achieving higher ratings contribute to a reduction in the consumption of finite, natural resources, for example by providing renewable energy.
- Metrics reported for this green purpose are:
 - Renewable energy generation (GWh)
 - Energy consumption avoided (MWh)
 - Materials recovered for recycling (kt)



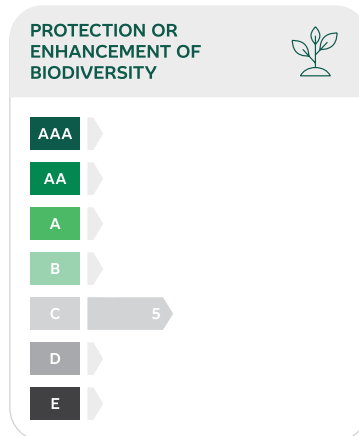
Protect or enhance the natural environment

- One project is anticipated to have a positive contribution, B rating, to the local environment following environmental mitigation measures. This is for a waste project where the positive rating is associated with diversion of waste from landfill.
- Most of the 2022/23 projects are anticipated to have no significant or minor adverse effects on the local environment, following environmental mitigation measures.
- The metric reported for this green purpose is landfill avoided (kt).



Protect or enhance biodiversity

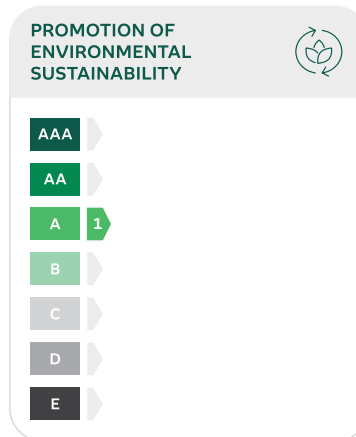
- All the 2022/23 projects are anticipated to have no significant adverse effects on biodiversity, following environmental mitigation measures. This leads to all projects receiving a C rating.
- Where there is uncertainty over impacts, we conservatively assume more severe impacts until mitigation measures are implemented.
- Adverse effects on biodiversity have been mitigated to the extent possible, with any residual effects deemed acceptable by planning and permitting authorities for each project.



Promote environmental sustainability

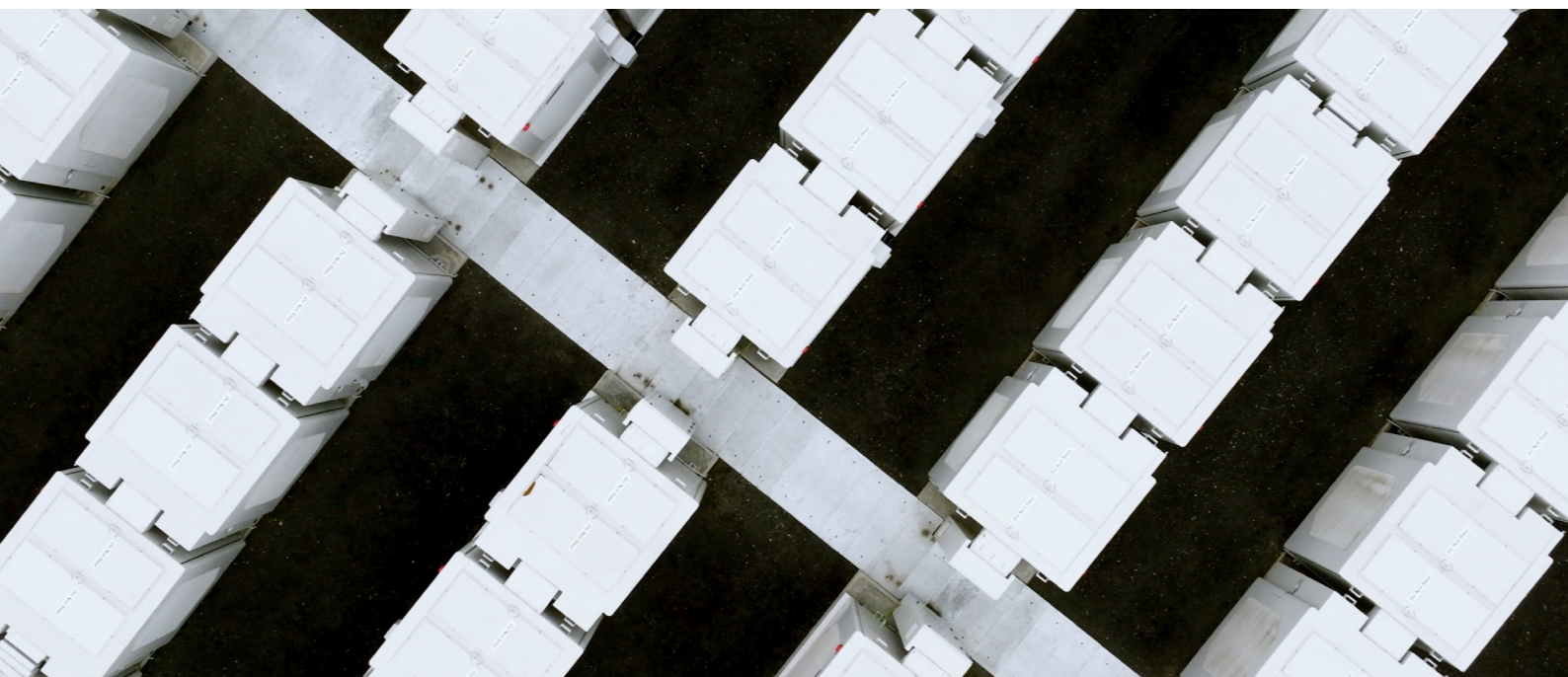
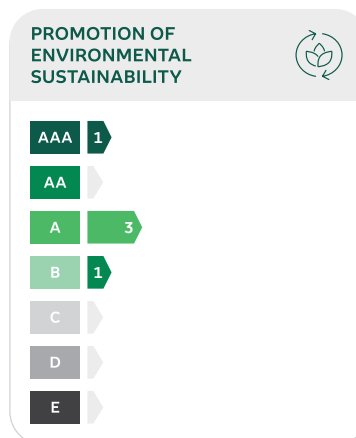
Development platforms and non-infrastructure portfolio companies

- While the other Green Purposes consider direct environmental sustainability contributions, this Green Purpose considers indirect contributions. Please refer to the Green Investment Policy on our [website](#) for our definition of this Green Purpose. The highest rating is A.
- All of our development platforms and non-infrastructure portfolio companies are expected to make a positive contribution to indirect promotion of environmental sustainability.



Underlying assets

- All of our projects are expected to make a positive contribution to indirect promotion of environmental sustainability. The highest rating is AAA.
- Green impact metrics associated with this Green Purpose are energy storage capacity in MW and MWh (BESS projects only).



Green impact statements

The green impact statements below indicate the principal quantifiable environmental benefits arising from our investments into assets and projects described in the Green Impact Reporting Criteria found on our [website](#) and from our managed funds' investments into projects that have reached Final Investment Decision (FID).

The green impact of all our balance sheet and fund assets – whether qualitative or quantitative – is measured by comparing the performance of the project to a defined baseline or 'counterfactual': i.e. what would happen in the absence of the project.

Green impact is not reported for projects into which only development funding has been provided, due to the relative uncertainty over potential future green impact. More information on our methodology can be found in the Green Impact Reporting Criteria, a copy of which is published on our [website](#).

We report on the green impact from balance sheet projects as we did in 2022, i.e. those projects where GIG provided binding commitment to make a principal investment at, or subsequent to, the project reaching FID. We also report on the green impact of projects from funds to which the Green Objective applies, as we did in 2022, i.e. those projects that reached FID by 31 March 2023.

Selected totals for data in the green impact statements – the 'Assured Disclosures' – in respect of the financial year 2022/23 have been independently assured by Deloitte in accordance with the Independent Limited Assurance Report (found on the following pages) and are indicated in the below tables²⁰. The Assured Disclosures are defined in the Independent Limited Assurance Report. The reporting period for the green impact statements is 1 April 2022 to 31 March 2023.

We are aware that Ofgem is investigating whether Drax Power Limited is in breach of annual profiling reporting requirements²¹. When a report is available, we will review the findings and decide if any action is required regarding amendments to Drax's estimated lifetime Green Impact reported with the Green Impact statements. A review was conducted in FY22 Progress Report and can be found [here](#).



20. ◊ Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the GIG Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB")). The equivalent 2022 values were assured as part of the 2022 GIG Progress Report.

21. 'Ofgem investigating Drax Power Limited's compliance with reporting requirements relating to the Renewables Obligation', [ofgem](#), 31 May 2023.

Funds

'MGREF1' is the Macquarie GIG Renewable Energy Fund 1. 'MGREF2' is the Macquarie GIG Renewable Energy Fund 2.

'Fund 3' is a fund focussed on investment into solutions to the energy transition. As this fund is not fully closed at the time of writing, it is not named here. This is not a marketing communication in any jurisdiction.

Lifetime green impact metrics[◇]

		Additional lifetime green impact from investments made in 2022/23	Lifetime green impact from all investments made to date
MGREF1	Greenhouse gas emissions avoided (kt CO ₂ e)	0	9,592
	Renewable energy generated (GWh)	0	22,138
MGREF2	Greenhouse gas emissions avoided (kt CO ₂ e)	12,233	14,577
	Renewable energy generated (GWh)	46,894	53,494
Fund 3	Greenhouse gas emissions avoided (kt CO ₂ e)	397	397
	Renewable energy generated (GWh)	377	377
	Energy storage capacity (MW/MWh)	399.5/613.5	399.5/613.5

Reduction of greenhouse gas emissions

Estimated lifetime GHG emissions reduction of new/all fund investments in the reporting period	Year ended 31.03.23 kilotonnes CO ₂ e	Year ended 31.03.22 kilotonnes CO ₂ e
MGREF1	0 [◇]	0
MGREF2	12,233 [◇]	243
Fund 3	397 [◇]	0

Estimated lifetime GHG emissions reduction of new/all fund investments to date	Year ended 31.03.23 kilotonnes CO ₂ e	Year ended 31.03.22 kilotonnes CO ₂ e
MGREF1	9,592 [◇]	9,623
MGREF2	14,577 [◇]	2,065
Fund 3	397 [◇]	0

[◇] Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB").

Generation of renewable energy

Estimated lifetime renewable energy generated by new/all fund investments in the reporting period

	Year ended 31.03.23 GWh	Year ended 31.03.22 GWh
MGREF1	0 [◇]	0
MGREF2	46,894 [◇]	1,885
Fund 3	377 [◇]	0

Estimated lifetime renewable energy generated by new/all fund investments to date

	Year ended 31.03.23 GWh	Year ended 31.03.22 GWh
MGREF1	22,138 [◇]	22,209
MGREF2	53,494 [◇]	5,694
Fund 3	377 [◇]	0



Estimated lifetime green impact of new/all fund investments to date - year on year changes	MGREF1		MGREF2	
	GHG emissions reduction kilotonnes CO ₂ e	Renewable energy generated GWh	GHG emissions reduction kilotonnes CO ₂ e	Renewable energy generated GWh
Year ended 31.03.22	9,623	22,209	1,352	4,105
Revised 31.03.22 following update on calculation methodology for fund share % (note 1)	9,623	22,209	2,065	5,694
New investments made in the period [◇]	0	0	12,233	46,894
Projects cancelled in the period	0	0	0	0
Removal of estimated remaining lifetime of assets exited in the period that were acquired as operational	0	0	0	0
Variation of forecast remaining lifetime and actuals from last year's forecast (note 2)	(31)	(72)	279	907
Year ended 31.03.23 [◇]	9,592	22,138	14,577	53,494

Funds: notes to the statements

Year-on-year changes to estimated lifetime green impact

The table above shows how the lifetime green impact at the end of 2022/23 compares to that at the end of 2021/22, and provides a breakdown of the changes.

1. Fund share percentages have been recalculated as the percentage of enterprise value owned, where equity is included on a fair value basis. This is in line with the fund share calculation applied by Macquarie Asset Management in investor reporting of private market funds.
2. Variation of lifetime impact from last year's forecast is due to a combination of yield reforecast and organic growth of portfolio companies' projects.

General notes to the statements

1. Macquarie GIG Renewable Energy Fund 1 (MGREF1) and Macquarie GIG Renewable Energy Fund 2 (MGREF2) both have a stake in the Gwynt y Môr offshore wind farm. Green impact is allocated to each fund with no double counting. For further information as to how we allocate green impact of investments, please see the Green Impact Reporting Criteria on our [website](#).
2. Reden Solar's lifetime impact is calculated based on estimated data due to lack of operational data; the potential variation has been determined not to be material to MGREF2's reported lifetime impact. Please refer to the Green Impact Reporting Criteria on our [website](#) for information on our materiality threshold.

[◇] Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB").

20th December 2023

Phone: +44 (0)118 950 8141
Fax: +44 (0)118 950 8101
www.deloitte.co.uk

Direct phone: 0044 20 7007 3031

Independent Limited Assurance Report to the Directors of UK Green Investment Bank Limited on Green Impact Data within the Progress Report in relation to Green Impact Data reported for MGRES1, MGRES2 and Fund 3

Independent Limited Assurance Report by Deloitte LLP to the Directors of UK Green Investment Bank Limited on the Selected Information within the Progress Report for the reporting period ended 31 March 2023.

What we found: Our assurance conclusion

Based on our procedures described in this report, and evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 March 2023, as listed below and indicated with a ◊ in the Progress Report has not been prepared, in all material respects, in accordance with the Applicable Criteria defined by the directors, which can be found on the GIG website: <https://www.greeninvestmentgroup.com/en/who-we-are/green-impact-governance.html>.

What we looked at: scope of our work

UK Green Investment Bank Limited has engaged us to perform an independent limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB") and our agreed terms of engagement.

The Selected Information in scope of our engagement for the year ended 31 March 2023, as indicated with a ◊ in the Progress Report, is as follows:

Green Impact Data *individually for each fund (MGREF1, MGRES2 and Fund 3), for "Lifetime green impact from all investments made by the fund to date" and "Additional lifetime green impact from investments made by the fund in 2022/23"*

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 1 New Street Square, London, EC4A 3HQ, United Kingdom.

Deloitte LLP is the United Kingdom affiliate of Deloitte NSE LLP, a member firm of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NSE LLP do not provide services to clients. Please see www.deloitte.com/about to learn more about our global network of member firms.

© 2023 Deloitte LLP. All rights reserved.

Fund	Selected Information	Unit of measurement	Applicable Criteria	Reported amount	
Additional Green Impact from investments made in 2022-23					
MGREF 1	Greenhouse gas emissions avoided	kt CO ₂ e	Self-defined "Green Impact Reporting Criteria"	0	
	Renewable energy generated	GWh		0	
MGREF 2	Greenhouse gas emissions avoided	kt CO ₂ e		12,233	
	Renewable energy generated	GWh		46,894	
Fund 3	Greenhouse gas emissions avoided	kt CO ₂ e		397	
	Renewable energy generated	GWh		377	
	Energy storage capacity	MW / MWh		399.5/613.5	
Lifetime Green Impact from cumulative investments made to date					
MGREF 1	Greenhouse gas emissions avoided	kt CO ₂ e		Self-defined "Green Impact Reporting Criteria"	9,592
	Renewable energy generated	GWh	22,138		
MGREF 2	Greenhouse gas emissions avoided	kt CO ₂ e	14,577		
	Renewable energy generated	GWh	53,494		
Fund 3	Greenhouse gas emissions avoided	kt CO ₂ e	397		
	Renewable energy generated	GWh	377		
	Energy storage capacity	MW / MWh	399.5/613.5		

The Selected Information, as listed in the above table needs to be read and understood together with the Applicable Criteria set out on the GIG website: <https://www.greeninvestmentgroup.com/en/who-we-are/green-impact-governance.html>.

Inherent limitations of the Selected Information

We obtained limited assurance over the preparation of the Selected Information in accordance with the Applicable Criteria. Inherent limitations exist in all assurance engagements.

Any internal control structure, no matter how effective, cannot eliminate the possibility that fraud, errors or irregularities may occur and remain undetected and because we use selective testing in our engagement, we cannot guarantee that errors or irregularities, if present, will be detected.

The self-defined Applicable Criteria, the nature of the Selected Information, and absence of consistent external standards allow for different, but acceptable, measurement methodologies to be adopted which may result in variances between entities. The adopted measurement methodologies may also impact comparability of the Selected Information reported by different organisations and from year to year within an organisation as methodologies develop.

Directors' responsibilities

The Directors are responsible for:

Selecting and establishing the Applicable Criteria.

Preparing, measuring, presenting and reporting the Selected Information in accordance with the Applicable Criteria.

Publishing the Applicable Criteria publicly in advance of, or at the same time as, the publication of the Selected Information.

Designing, implementing, and maintaining internal processes and controls over information relevant to the preparation of the Selected Information to ensure that they are free from material misstatement, including whether due to fraud or error.

Providing sufficient access and making available all necessary records, correspondence, information and explanations to allow the successful completion of the Services.

Confirming to us through written representations that you have provided us with all information relevant to our Services of which you are aware, and that the measurement or evaluation of the underlying subject matter against the Applicable Criteria, including that all relevant matters, are reflected in the Selected Information.

Our responsibilities

We are responsible for:

Planning and performing procedures to obtain sufficient appropriate evidence in order to express an independent limited assurance conclusion on the Selected Information.

Communicating matters that may be relevant to the Selected Information to the appropriate party including identified or suspected non-compliance with laws and regulations, fraud or suspected fraud, and bias in the preparation of the Selected Information.

Reporting our conclusion in the form of an independent limited Assurance Report to the Directors.

Our independence and competence

In conducting our engagement, we complied with the independence and other ethical requirements of the ICAEW Code of Ethics. The ICAEW Code is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We applied the International Standard on Quality Management (UK) 1 ("ISQM (UK) 1"), issued by the Financial Reporting Council. Accordingly, we maintained a comprehensive system of quality including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

What we did: key procedures

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the description of activities undertaken in respect of the Selected Information is likely to arise. The procedures we performed were based on our professional judgment. In carrying out our limited assurance engagement on the description of activities undertaken in respect of the Selected Information, we performed the following procedures:

- Performed analytical review procedures and consider the risks of material misstatement of the Selected Information.
- Through inquiries of management, obtained an understanding of the Company, its environment, processes and information systems relevant to the preparation of the Selected Information sufficient to identify and assess risks of material misstatement in the Selected

Information, and provide a basis for designing and performing procedures to respond to assessed risks and to obtain limited assurance to support a conclusion.

- Through inquiries of management, obtained an understanding of internal controls relevant to the Selected Information, the quantification process and data used in preparing the Selected Information, the methodology for gathering qualitative information, and the process for preparing and reporting the Selected Information. We will not evaluate the design of particular internal control activities, obtain evidence about their implementation or test their operating effectiveness.
- Through inquiries of management, documented whether an external expert has been used in the preparation of the Selected Information, then evaluate the competence, capabilities and objectivity of that expert in the context of the work performed and also the appropriateness of that work as evidence.
- Inspected documents relating to the Selected Information, including board committee minutes and where applicable internal audit outputs to understand the level of management awareness and oversight of the Selected Information.
- Performed procedures over the Selected Information, including recalculation of relevant formulae used in manual calculations and assessment whether the data has been appropriately consolidated.
- Performed procedures over underlying data on a statistical sample basis to assess whether the data has been collected and reported in accordance with the Applicable Criteria, including verifying to source documentation. We reviewed information supplied by GIB clients, projects or fund managers, or collected within GIB and information supplied by the Funds, fund managers or collected from the Funds' portfolio companies. We did not carry out any work to verify that information, and nor did we carry out any work over its completeness or accuracy. We also did not conduct any site visits.
- Performed procedures over the Selected Information including assessing management's assumptions and estimates.
- Accumulated misstatements and control deficiencies identified, assessing whether material.
- Read the narrative accompanying the Selected Information with regard to the Applicable Criteria, and for consistency with our findings.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Use of our report

This report is made solely to the Directors of UK Green Investment Bank Limited in accordance with ISAE 3000 (Revised) and our agreed terms of engagement. Our work has been undertaken so that we might state to the Directors of UK Green Investment Bank Limited those matters we have agreed to state to them in this report and for no other purpose.

Without assuming or accepting any responsibility or liability in respect of this report to any party other than UK Green Investment Bank Limited and the Directors of UK Green Investment Bank Limited, we acknowledge that the Directors of UK Green Investment Bank Limited may choose to make this report publicly available for others wishing to have access to it, which does not and will not affect or extend for any purpose or on any basis our responsibilities. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than UK Green Investment Bank Limited and the Directors of UK Green Investment Bank Limited as a body, for our work, for this report, or for the conclusions we have formed.

Deloitte LLP

Deloitte LLP
London, UK

Balance sheet

'MGREF 1' is the Macquarie GIG Renewable Energy Fund 1. 'MGREF 2' is the Macquarie GIG Renewable Energy Fund 2. 'Fund 3' is a fund focussed on investment into solutions to the energy transition. As this fund is not fully closed at the time of writing, it is not named here. This is not a marketing communication in any jurisdiction.

Lifetime green impact metrics[◇]

	Additional lifetime green impact from investments made in 2022/23	Lifetime green impact from all investments made to date
Greenhouse gas emissions avoided (kt CO ₂ e)	9,516	217,516
Renewable energy generated (GWh)	16,222	599,153
Energy demand reduced (GWh)	0	3,959
Materials recycled (kt)	1,581	40,037
Waste to landfill avoided (kt)	6,645	131,982
Energy storage capacity (MW/MWh)	6/13	263/553



[◇] Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB").

Reduction of greenhouse gas (GHG) emissions

Estimated lifetime GHG emissions reduction of new GIG investments in the reporting period	Year ended 31.03.23 kilotonnes CO ₂ e	Year ended 31.03.22 kilotonnes CO ₂ e
Offshore wind	0	0
Waste	1,334	0
Energy efficiency	0	0
Bioenergy	0	0
Onshore wind	5,519	2,359
Solar	2,663	4,361
Total	9,516[◇]	6,720

Estimated lifetime GHG emissions reduction of all GIG investments to date	Year ended 31.03.23 kilotonnes CO ₂ e	Year ended 31.03.22 kilotonnes CO ₂ e
Offshore wind	68,394	68,282
Waste	39,057	37,721
Energy efficiency	2,277	2,277
Bioenergy	65,263	66,202
Onshore wind	31,431	29,207
Solar	11,094	8,404
Total	217,516[◇]	212,093

◇ Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB")).

Generation of renewable energy

Estimated lifetime renewable energy generated by new GIG investments in the reporting period	Year ended 31.03.23 GWh	Year ended 31.03.22 GWh
Offshore wind	0	0
Waste	3,404	0
Energy efficiency	0	0
Bioenergy	0	0
Onshore wind	6,713	2,788
Solar	6,105	9,331
Total	16,222[◇]	12,119

Estimated lifetime renewable energy generated by all GIG investments to date	Year ended 31.03.23 GWh	Year ended 31.03.22 GWh
Offshore wind	158,884	158,603
Waste	76,144	72,613
Energy efficiency	1,265	1,265
Bioenergy	216,411	220,582
Onshore wind	121,743	118,788
Solar	24,706	18,467
Total	599,153[◇]	590,318

◇ Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB")).

Energy demand reduction

Estimated lifetime energy demand reduced by new GIG investments in the reporting period	Year ended 31.03.23 MWh	Year ended 31.03.22 MWh
Electricity	0	0
Heating fuels	0	0
Total	0[◇]	0

Estimated lifetime energy demand reduced by all GIG investment to date	Year ended 31.03.23 MWh	Year ended 31.03.22 MWh
Electricity	1,800,459	1,800,459
Heating fuels	2,158,799	2,158,799
Total	3,959,258[◇]	3,959,258

◇ Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB").

Recycling of materials

Estimated lifetime materials consumption avoided through materials recycling by new GIG investments in the reporting period	Year ended 31.03.23 tonnes	Year ended 31.03.22 tonnes
Compost	0	0
Digestate (PAS 110)	0	0
Compost-like output	0	0
Plastics-mixed	0	0
Ferrous metals	185,300	0
Non-ferrous metals	34,640	0
Paper/card	0	0
Glass	0	0
Mineral aggregates	1,360,700	0
Waste electrical and electronic equipment (WEEE)	0	0
Other	0	0
Total	1,580,640[◇]	0

◇ Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB")).

Estimated lifetime materials consumption avoided through materials recycling by all GIG investments to date	Year ended 31.03.23 tonnes	Year ended 31.03.22 tonnes
Compost	987,642	987,642
Digestate (PAS 110)	7,466,156	7,466,156
Compost-like output	1,128,809	1,128,809
Plastics-mixed	704,050	704,050
Ferrous metals	1,598,217	1,412,638
Non-ferrous metals	823,903	789,200
Paper/card	654,299	654,299
Glass	9,424	9,424
Mineral aggregates	20,483,722	19,119,170
Waste electrical and electronic equipment (WEEE)	34,328	34,328
Other	6,146,348	6,146,348
Total	40,036,898[◇]	38,452,064

◇ Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB").

Avoidance of waste to landfill

Estimated lifetime waste to landfill avoided by new GIG investments in the reporting period	Year ended 31.03.23 tonnes	Year ended 31.03.22 tonnes
Biodegradable waste	4,721,020	0
Non-biodegradable waste	1,924,320	0
Total	6,645,340[◇]	0

Estimated lifetime waste to landfill avoided by all GIG investments to date	Year ended 31.03.23 tonnes	Year ended 31.03.22 tonnes
Biodegradable waste	89,174,689	84,441,591
Non-biodegradable waste	42,807,612	40,877,690
Total	131,982,301[◇]	125,319,281

Energy storage capacity

Estimated lifetime energy storage capacity added by new GIG investments in the reporting period	Year ended 31.03.23 tonnes	Year ended 31.03.22 tonnes
Electrical power capacity (MW)	6 [◇]	194
Electrical energy capacity (MWh)	13 [◇]	200
Estimated lifetime energy storage capacity added by all GIG investments to date	Year ended 31.03.23 tonnes	Year ended 31.03.22 tonnes
Electrical power capacity (MW)	263 [◇]	257
Electrical energy capacity (MWh)	553 [◇]	540

[◇] Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB").

Estimated lifetime green impact of all GIG investments to date - year on year changes	GHG emissions reduction kilotonnes CO ₂ e	Renewable energy generated GWh	Energy demand reduced MWh	Materials recycled tonnes	Waste to landfill avoided tonnes	Energy storage capacity MW/MWh
Year ended 31.03.22	212,093	590,318	3,959,258	38,452,064	125,319,281	253/540
Revised 31.03.22 following corrections (note 1)	212,093	590,318	3,959,258	38,452,064	125,319,281	257/540
New investments made in the period (note 2) [◇]	9,516	16,222	0	1,580,640	6,645,340	6/13
Projects cancelled in the period	0	0	0	0	0	0
Removal of estimated remaining lifetime of assets exited in the period that were acquired as operational (note 3)	(3,457)	(4,171)	0	0	0	0
Variation of forecast remaining lifetime and actuals from last year's forecast (note 4)	(636)	(3,217)	0	4,194	17,680	0
Year ended 31.03.23 [◇]	217,516	599,153	3,959,258	40,036,898	131,982,301	263/553

Balance sheet: notes to the statements

Year-on-year changes to estimated lifetime green impact

The table above shows how the lifetime green impact at the end of 2022/23 compares to that at the end of 2021/22, and provides a breakdown of the changes. In summary, these changes in lifetime green impact were caused by:

1. Non-material adjustments/corrections
 - Investments made in the last period but not included in last year's report where, in the period ending 31.03.22, GIG invested in and developed beyond Final Investment Decision, which is the milestone for securing the project's financing prior to construction and the point at which projects are reported in the green impact statements. This includes a battery storage project in the US (Javits).
 - Electrical energy capacity of Maldon was updated to 40 MWh, replacing the oversized capacity reported last year (50 MWh), which accounted for losses.
2. New investments made in this period. These include three solar projects (Delfini, Greece Bolotana B, Italy; and VEH Srishti, India) one waste-to-energy project in the UK (South Clyde Energy Centre), and one battery storage project in the US (Ford).

[◇] Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB")).

3. Removal of estimated remaining lifetime of exited assets that were acquired as operational – in line with our Green Impact Reporting Criteria available on our [website](#), when GIG acquired assets that were already operational, the remaining lifetime green impact of these is not included upon divestment. Remaining green impact from such assets divested prior to, during, and since the reporting period is not included in the 2022/23 figures.
4. Existing projects' variation of performance/reforecasts from last year forecasts
 - Where project performance varies >5 per cent from forecasts, GIG takes an average of past performance and, where relevant, pre-operational forecasts to estimate the remaining lifetime green impact. See Green Impact Reporting Criteria on our [website](#) for further information.

General notes to the statements

1. A significant proportion of GIG's lifetime green impact is anticipated to be delivered by projects after their divestment by GIG. This follows the approach for reporting the green impact of exited transactions specified in the Green Impact Reporting Criteria on our [website](#). The percentage of lifetime impact of each metric after divestment is shown in the table below:

Metric	Percentage of lifetime green impact from projects after their divestment
GHG emissions reduction	72%
Renewable energy generated	71%
Energy demand reduced	93%
Materials recycled	94%
Waste-to-landfill avoided	94%
Energy storage capacity	100%

◊ Indicator signifies where limited assurance over the preparation of the Selected Information has been obtained in accordance with the Green Reporting Criteria and with the International Standard on Assurance Engagements 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ISAE 3000 (Revised)", issued by the International Auditing and Assurance Standards Board ("IAASB")).

20th December 2023

Phone: +44 (0)118 950 8141
Fax: +44 (0)118 950 8101
www.deloitte.co.uk

Direct phone: 0044 20 7007 3031

Independent Limited Assurance Report to the Directors of UK Green Investment Bank Limited on Green Impact Data within the Progress Report in relation to Green Impact Data reported for projects held on Green Investment Group's balance sheet

Independent Limited Assurance Report by Deloitte LLP to the Directors of UK Green Investment Bank Limited on the Selected Information within the Progress Report for the reporting period ended 31 March 2023.

What we found: Our assurance conclusion

Based on our procedures described in this report, and evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 March 2023, as listed below and indicated with a \diamond in the Progress Report has not been prepared, in all material respects, in accordance with the Applicable Criteria defined by the directors, which can be found on the GIG website: <https://www.greeninvestmentgroup.com/en/who-we-are/green-impact-governance.html>.

Emphasis of matter

We draw your attention to Note 1 of General Notes to the Statements, which includes a table illustrating the proportion of GIG's Lifetime Green Impact attributable to exited investments. GIG's approach to accounting for exited investments is described on page 4 of GIG's Reporting Criteria. For assets acquired as Pre-construction or Construction assets, GIG continues to report the estimated future remaining lifetime Green Impact beyond the point of exit. Consequently, under GIG's Reporting Criteria, it is assumed that assets continue to perform in line with the estimations forecast at the point of exit. Our conclusion is not modified in this respect.

What we looked at: scope of our work

UK Green Investment Bank Limited has engaged us to perform an independent limited assurance in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* ("ISAE 3000 (Revised)),

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 1 New Street Square, London, EC4A 3HQ, United Kingdom.

Deloitte LLP is the United Kingdom affiliate of Deloitte NSE LLP, a member firm of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NSE LLP do not provide services to clients. Please see www.deloitte.com/about to learn more about our global network of member firms.

issued by the International Auditing and Assurance Standards Board (“IAASB”) and our agreed terms of engagement.

The Selected Information in scope of our engagement for the period ended 31 March 2023, and as listed below and indicated with a ◊ in the Progress Report is as follows:

Green Impact Data for “Lifetime green impact from all investments made to date” and “Additional lifetime green impact from investments made in 2022/23”			
Selected Information	Unit of measurement	Applicable Criteria	Reported amount
Additional Green Impact from investments made in 2022-23			
GHG emissions reduction	kt CO ₂ e	Self-defined “Green Impact Reporting Criteria”	9,516
Renewable energy generated	GWh		16,222
Energy demand reduced	GWh		0
Materials recycled	kt		1,581
Waste-to-landfill avoided	kt		6,645
Energy storage capacity	MW / MWh		6/13
Lifetime impact from cumulative investments made to date			
GHG emissions reduction	kt CO ₂ e	Self-defined “Green Impact Reporting Criteria”	217,516
Renewable energy generated	GWh		599,153
Energy demand reduced	GWh		3,959
Materials recycled	kt		40,037
Waste-to-landfill avoided	kt		131,982
Energy storage capacity	MW / MWh		263/553

The Selected Information, as listed in the above table, needs to be read and understood together with the Applicable Criteria set out on the GIG website: <https://www.greeninvestmentgroup.com/en/who-we-are/green-impact-governance.html>.

Inherent limitations of the Selected Information

We obtained limited assurance over the preparation of the Selected Information in accordance with the Applicable Criteria. Inherent limitations exist in all assurance engagements.

Any internal control structure, no matter how effective, cannot eliminate the possibility that fraud, errors or irregularities may occur and remain undetected and because we use selective testing in our engagement, we cannot guarantee that errors or irregularities, if present, will be detected.

The self-defined Applicable Criteria, the nature of the Selected Information, and absence of consistent external standards allow for different, but acceptable, measurement methodologies to be adopted which may result in variances between entities. The adopted measurement methodologies may also impact comparability of the Selected Information reported by different organisations and from year to year within an organisation as methodologies develop.

Directors’ responsibilities

The Directors are responsible for:

Selecting and establishing the Applicable Criteria.

Preparing, measuring, presenting and reporting the Selected Information in accordance with the Applicable Criteria.

Publishing the Applicable Criteria publicly in advance of, or at the same time as, the publication of the Selected Information.

Designing, implementing, and maintaining internal processes and controls over information relevant to the preparation of the Selected Information to ensure that they are free from material misstatement, including whether due to fraud or error.

Providing sufficient access and making available all necessary records, correspondence, information and explanations to allow the successful completion of the Services.

Confirming to us through written representations that you have provided us with all information relevant to our Services of which you are aware, and that the measurement or evaluation of the underlying subject matter against the Applicable Criteria, including that all relevant matters, are reflected in the Selected Information.

Our responsibilities

We are responsible for:

Planning and performing procedures to obtain sufficient appropriate evidence in order to express an independent limited assurance conclusion on the Selected Information.

Communicating matters that may be relevant to the Selected Information to the appropriate party including identified or suspected non-compliance with laws and regulations, fraud or suspected fraud, and bias in the preparation of the Selected Information.

Reporting our conclusion in the form of an independent limited Assurance Report to the Directors.

Our independence and competence

In conducting our engagement, we complied with the independence and other ethical requirements of the ICAEW Code of Ethics. The ICAEW Code is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We applied the International Standard on Quality Management (UK) 1 (“ISQM(UK) 1”), issued by the Financial Reporting Council. Accordingly, we maintained a comprehensive system of quality including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

What we did: key procedures

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the description of activities undertaken in respect of the Selected Information is likely to arise. The procedures we performed were based on our professional judgment. In carrying out our limited assurance engagement on the description of activities undertaken in respect of the Selected Information, we performed the following procedures:

- Performed analytical review procedures and consider the risks of material misstatement of the Selected Information.
- Through inquiries of management, obtained an understanding of the Company, its environment, processes and information systems relevant to the preparation of the Selected Information sufficient to identify and assess risks of material misstatement in the Selected Information, and provide a basis for designing and performing procedures to respond to assessed risks and to obtain limited assurance to support a conclusion.
- Through inquiries of management, obtained an understanding of internal controls relevant to the Selected Information, the quantification process and data used in preparing the Selected Information, the methodology for gathering qualitative information, and the process for preparing and reporting the Selected Information. We will not evaluate the design of particular internal control activities, obtain evidence about their implementation or test their operating effectiveness.

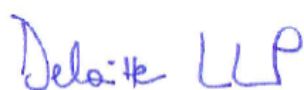
- Through inquiries of management, documented whether an external expert has been used in the preparation of the Selected Information, then evaluate the competence, capabilities and objectivity of that expert in the context of the work performed and also the appropriateness of that work as evidence.
- Inspected documents relating to the Selected Information, including board committee minutes and where applicable internal audit outputs to understand the level of management awareness and oversight of the Selected Information.
- Performed procedures over the Selected Information, including recalculation of relevant formulae used in manual calculations and assessment whether the data has been appropriately consolidated.
- Performed procedures over underlying data on a statistical sample basis to assess whether the data has been collected and reported in accordance with the Applicable Criteria, including verifying to source documentation. We reviewed information supplied by GIB clients, projects or fund managers, or collected within GIB and information supplied by the Funds, fund managers or collected from the Funds' portfolio companies. We did not carry out any work to verify that information, and nor did we carry out any work over its completeness or accuracy. We also did not conduct any site visits.
- Performed procedures over the Selected Information including assessing management's assumptions and estimates.
- Accumulated misstatements and control deficiencies identified, assessing whether material.
- Read the narrative accompanying the Selected Information with regard to the Applicable Criteria, and for consistency with our findings.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Use of our report

This report is made solely to the Directors of UK Green Investment Bank Limited in accordance with ISAE 3000 (Revised) and our agreed terms of engagement. Our work has been undertaken so that we might state to the Directors of UK Green Investment Bank Limited those matters we have agreed to state to them in this report and for no other purpose.

Without assuming or accepting any responsibility or liability in respect of this report to any party other than UK Green Investment Bank Limited and the Directors of UK Green Investment Bank Limited, we acknowledge that the Directors of UK Green Investment Bank Limited may choose to make this report publicly available for others wishing to have access to it, which does not and will not affect or extend for any purpose or on any basis our responsibilities. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than UK Green Investment Bank Limited and the Directors of UK Green Investment Bank Limited as a body, for our work, for this report, or for the conclusions we have formed.



Deloitte LLP
London, UK
20 December 2023

Important Notice and Disclaimer

The information contained in this document must not be reproduced or disseminated for any purpose without our prior written consent.

This document does not constitute an offer, invitation, solicitation or recommendation and does not oblige Green Investment Group Limited ("GIG") or any of its affiliates or funds managed by its affiliates (together, "Macquarie") to make an investment, underwrite or otherwise acquire an interest in any securities or to provide any financing or advice, or to enter into any transaction or arrangement of any kind, in relation to the matters contemplated in this document or otherwise. Any proposal or offer would be conditional upon, amongst other things, Macquarie obtaining internal approvals and external approvals and detailed legal, taxation and accounting advice and agreeing definitive documentation.

This document does not purport to contain all the information that may be required by the recipient of this document to assess its interests in any proposal or the matters addressed in this document. Macquarie has prepared this document on the basis of information which is confidential, information which is publicly available and sources that are believed to be reliable. The accuracy of all such information (including all assumptions) has been relied upon by Macquarie and has not been independently verified by Macquarie. The recipient of this document should conduct its own independent investigation and assessment as to the validity of the information contained in this document and the economic, financial, regulatory, legal, taxation, stamp duty and accounting implications of that information. The recipient of this document represents that it is not relying on any recommendation or statement of Macquarie. To the maximum extent permitted by law, Macquarie and its respective directors, officers, employees, agents and consultants make no representation or warranty as to the accuracy or completeness of the information contained in this document and take no responsibility under any circumstances for any loss or damage suffered as a result of any omission, inadequacy, or inaccuracy in this document.

This document may contain certain forward-looking statements, forecasts, estimates, projections and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. Actual future results and operations could vary materially from the Forward Statements. Similarly, no representation or warranty is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. The recipient of this document acknowledges that circumstances may change and the contents of this document may become outdated as a result.

The recipient of this document acknowledges that neither it nor Macquarie intends that Macquarie acts or be responsible as a fiduciary or adviser to the recipient, its management, stockholders, creditors or any other person, except to the extent expressly agreed in writing by Macquarie. Each of the recipient and Macquarie, by accepting and providing this document respectively, expressly disclaims any fiduciary relationship and agrees that the recipient is responsible for making its own independent judgments with respect to any transaction and any other matters set out in or regarding this document.

GIG is not authorised or regulated by the Financial Conduct Authority or the Prudential Regulation Authority. GIG is not an authorised deposit-taking institution for the purposes of the Banking Act 1959 (Commonwealth of Australia) and its obligations do not represent deposits or other liabilities of Macquarie Bank Limited ABN 46 008 583 542. Macquarie Bank Limited does not guarantee or otherwise provide assurance in respect of the obligations of GIG.